United States Department of the Interior

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Information Bulletin **No. CA-99-51**

To: Central California & NorCal Field Office Managers

From: State Director

Subject: 1999 California Fire Management Plan

The attached Fire Management Plan is the result of a significant cooperative effort between the Field Offices, California State Office and National Office. The goal of this plan is to identify the most efficient fire organization (personnel, equipment and facilities) that collectively meets the Bureau's mission to sustain the health, diversity and productivity of California's public lands. This fire management plan is viewed as a "contract" that exists between the Field Office, the State Office and the National Office.

Your Field Office Fire Management Plan (FMP) was developed through an economic analysis that determines the most effective level (MEL) of fire program organization that will meet your office's land management/resource protection objectives. The FMP's collateral goal is also to evaluate and identify the most economically efficient fire organization that can realistically accomplish the mission.

This FMP is the latest iteration in the Bureau fire planning process, and is used at the National level as a basis for fire program budget justifications and allocations for Fiscal Year 2000. You should be aware that periodic recalculations of your most efficient level of fire organization may be necessary due to changes in resource objectives, values at risk, fire protection responsibilities and land base. We anticipate the next large-scale FMP update/revision effort to occur in calendar year 2003.

Please review this document thoroughly, and ensure that the plan objectives are fulfilled to the maximum extent that our funding level allows.

Signed
Al Wright
Acting State Director

Authenticated
AJ Ajitsingh
Records Management

Attachment:

Central California Fire Management Plan **[PDF]** (165 Pages)

Northern California (NORCAL) Fire Management Plan **{PDF}** (158 Pages)

CENTRAL CALIFORNIA REGION

1998

Fire Management Activity Plan

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Fire Management Plan (FMP)
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Central California Region Introduction

This plan is submitted as a joint effort between the four field offices; Bishop, Folsom, Hollister and Bakersfield Field Offices, which collectively make up the Central California Region;.

Central California is a large and very diverse management unit that geographically encompasses over one third of the state. Approximately two million acres of public lands are scattered through 33 of California's 58 counties. To accomplish fire management objectives as determined by resource managers, CCR has a fire protection program that includes both a force account fire organization and an exchange of protection agreement with the California Department of Forestry and Fire Protection (CDF).

All BLM lands in the Folsom and Hollister Field Offices and parts of the Bakersfield and Bishop Field Offices are protected for suppression purposes by CDF. Fire prevention and fire use activities remain as Field Office responsibility. In exchange, BLM participates in a "Balance of Acres" agreement between CDF and the federal agencies of BLM, Forest Service, and National Park Service. This Cooperative Fire Protection Agreement accomplishes two main objectives. The first is designating Direct Protection Areas (DPA). "Each agency assumes the responsibility to directly provide adequate wildland fire protection services to the lands of the other agencies which are located on its side of the protection boundary." The second is setting up a Mutual Aid agreement between the participating agencies. "This is the automatic initial attack response by suppression resources (excluding aircraft)... for specific pre-planned initial attack response areas and provided at no cost to the protecting agency. Mutual Aid will be limited to 24 hours from the time of initial report." This allows for the efficiency of the "closest resources necessary" responding while keeping cross billing down to a minimum.

BLM provides wildfire protection on 915,000 acres of private lands (State Responsibility Area - SRA), state wide, that are intermingled with or adjoin public lands protected by BLM force account. CDF protects 2,306,000 acres of public BLM lands state wide. Locally, the Bakersfield and Bishop Offices protect 128,310 acres of SRA while CDF protects 920,865 acres within the Central California Region. In total the BLM Central California Region fire organization protects 1,291,395 acres, including the 128,310 SRA acres and 44,145 acres Forest Service lands in the Kiavah Wilderness. The Forest Service protects the public lands within the Santa Barbara and Ventura counties for BBD.

Protection Summary for CCR Fire Organization

Agency	CCR acres	SRA	Forest Service	Total
CCR	1,118,940	128,310	44,145	1,291,395
CDF	920,865			920,865
USFS	9,430			9,430

As a result the Central California Region fire program has two very different and distinct fire protection standards. The force account area is more responsive to resource values and management objectives, recognizing adjacent private land needs; the CDF protection area is responsive to private property protection requirements, recognizing adjacent federal land requirements. Through the use of Modified Suppression Plans, signed by Field Office Managers and CDF Unit Chiefs, resource values are identified and protected as would be under federal protection. Annual operating plan meetings, working together on interagency incidents, and training together has brought the state and federal fire protection agencies closer together in recognizing the full spectrum of fire management.

The purpose of this Fire Management Plan (FMP) is to identify and credential an efficient fire protection organization with standards and fire use objectives that reflect land use planning decisions, line management direction, and address the external factors that affect CCR fire management. With this accomplished the next step will be to expand beyond Central California borders to do joint analysis with neighboring field office fire resources and develop possible shared resources that might be more efficient.

There are currently five stand alone BLM fire stations, four interagency stations, and two Field Offices housing fire equipment in the Central California Region. Two of the stand alone stations will closed and consolidate into a new fire station in the Mono Basin by the year 1999. Benton and Conway will be closed, and consolidated into the Mono Basin Station.. Besides Mono Basin, there are two other stations that operate multiple fire engines, South Fork and Carrizo. Personnel at these stations are assigned staggered days-off schedules to achieve seven-day coverage. During their operational period there is a 38% chance on any fire day that it will be a multiple fire day, i.e., more than one fire start somewhere in the region.

For BLM, IIAA modeling (based on ten-years of fire data) has demonstrated that utilization of a medium (type II) helicopter with a 14 person rappell crew stationed at the Keene fire station was more efficient than a non rappelling crew. Even with an extra charge for supplies and training it was cheaper with only a 10 minute earlier arrival to the fire scene. This reduction is conservative considering the crew arriving near the fires edge as opposed to locating a landing spot and walking into the fire in the steep terrain of both FMZ 3 and 5.

All CCR BLM fire suppression operations are closely tied to an interagency "closest forces" concept.

The planned, Most Efficient Level (MEL) Fire Organization is summarized below.

MOST EFFICIENT PLANNED LEVEL OF FIRE ORGANIZATION

PERSONNEL

PFT Fire Staff (22)	
Region Fire Management Officer	1
Reg. Fire Control Officer	1
Field Office Fire Management Officers	2
FO Fire Management Officers (2823 funded)	2
Fire Prevention Officer	1
Helicopter Superintendent	1
Hot Shot Superintendent	1
Dispatchers	4
Heavy Equipment Operators	4
Heavy Equipment Mechanic	1
Warehouse	1
Fleet Manager	1
Radio Technicians	2
Career Seasonal (38)	
Asst. Helicopter Mgr	1
Helicopter Squad Leader	2
Asst. Hot Shot Superintendant	1
Hot Shot Squad Leader	3
Heavy Engine Captain	5
Heavy Engine Assistant Captain	5
Heavy Engine Operator	5
Light Engine Captain	7
Light Engine Operator	7
Seasonal Fire Fighters (69)	
Lookout Personnel	1
Engine Personnel	36
Hot Shot Personnel	15
Helitack Personnel	7
Dispatcher	3
Water Tender Relief Operator	4
Dozer Walker	3

EQUIPMENT

Type III Engines (National Type 4)	5
Type IV Engines (National Type 6)	7
Type II Water Tender	2
Type III Water Tender	1
Overhead Vehicles (FMO, FOFMO, FPO)	15
Crew Carriers, (1 Flight Crew, 2 Hot Shot)	3
Type II Helicopter	1
Helitack Unit	1

Type II Helicopter, B-212	1
Hot Shot Superintendent Unit	1
Dozer Tender Units	3
Fire Dozers: a D-6H, D-7H	2
Project Dozer, D-5	1
Terra Torch Unit	1
Batch Mixer with torch	1

STATIONS

Topaz Interagency-	1 Light Engine
Poleline -	2 Heavy Engines
Bishop FO -	1 Light Engine
Chimney Peak -	1 Light Engine
Kennedy Meadows Interagency-	1 Light Engine
South Fork -	1 Heavy Engine, 1 Light Engine
Kernville Interagency -	1 D-6H Dozer, 1 Water Tender (TyII), 1 Light Engine
Bakersfield FO -	1 Heavy Engine, 1 Water Tender (TyIII), 1 D-7H Dozer, 1 Hot Shot Crew
Keene Interagency -	1 Type II Helicopter
Carrizo -	1 Heavy Engine, 1 Light Engine, 1 Water Tender (TyII)

FIRE PROGRAM ADMINISTRATIVE SUPPORT (2810)

Radio Technicians	10 WM
AFO Mgr. Operations	2 WM
Purchasing	2 WM
Personnel	2 WM
Property	2 WM
Clerical Support	10 WM
FO Manager	1 WM
Public Affairs	1 WM
Fire Admin Asst.	7 WM
L.E. Rangers	8 WM

Interagency Agreements with Central California Region

I. State of California:
   A. Department of Forestry and Fire Protection:
      1. Cooperative Fire Protection Agreemant between BLM, CA and NV; National Park Service; US Forest Service, Regions 4, 5 and 6.
      2. Operating Plans for:
         a. High Desert
         b. Central Sierra
         c. Central Coast
         d. North Coast (BLM represented by NorCal)
   B. Office of Emergency Services (OES)
      OES/CDF/USFS/BLM/NPS for Structure Protection from local government
   C. State Parks Department, Bodie Hills/CCR; BLM provides wildland fire protection

II. Counties:
   A. Tulare/CCR for Kennedy Meadows Station
   B. Kern/CCR/CDD mutual aid, Keene Helibase, etc.
   C. Kern/CASO BLM aviation needs
   D. Kings/CCR mutual aid in LRA
   E. Santa Barbara/CCR
   F. San Luis Obispo/CCR

III. US Forest Service:
   A. Sequaoia/CCR Interagency response area, communications, etc.
   B. Toyabe/CCR: Carson RD, Bridgeport RD/CCR, Carson City (CCD) Topaz Station, Bridgeport Helicopter crew, etc.
   C. Los Padres/CCR, mutual aid, share operation equipment for project work, etc.
   D. Angeles/CCR, use of Zone Fire Cache
   E. Stanislaus/CCR, ORV and fuelbreak patrol
   F. Inyo/CCR interagency ECC, mutual aid, parking in White Mountain, etc

IV. Military:
   A. China Lake Naval Air Weapons Station/CCR/CDD/INF/SQF mutual aid, use of equipment, High Desert Fire Prevention Association
   B. Lemore Naval Air Station/CCR air rescue
   C. R-2508 Complex/CCR/CDD/SQF/INF/KNP/Death Valley NP, coordinate air operations in Military Training Routes.

V. US Fish and Wildlife:
   A. Kern NWL Refuge, San Luis NWL Complex/CCR; dispatch operations, mutual aid, etc.

VI. Bureau Of Land Management:
Battle Mountain, NV/CCR; protection in Nevada near Bishop.

VII. Volunteer Fire Departments, Bishop Field Office has 3 of 11 possible agreements with local agencies for mutual aid, first two hours free, agreements.
- A. Chalfant
- B. Antelope Valley
- C. June Lake

VIII. Department of Water and Power, City of Los Angeles/CCR; assistance for hire equipment in fire suppression in Owens Valley

II. FIRE MANAGEMENT ZONES & REPRESENTATIVE LOCATIONS

The Central California Region has identified five Fire Management Zones (FMZ's) within it's administrative boundaries. These FMZ's are delineated by large landscapes that share like fire behavior characteristics. Similarities in fire behavior characteristics are based on fuel models, weather patterns and topographical influences that exist within the set geographic area of an FMZ.

As previously mentioned, CCR Fire Management Zones are divided into two different fire protection area types within it's five FMZ's. BLM CCR provides direct fire protection in FMZ 1, 3, 4, and 5 (reference the chart below). In FMZ 2, BLM CCR lands are provided fire protection by CDF through the California Interagency Cooperative Fire Protection Agreement.

Statistically, the historical CCR FMZ average annual occurrences and total acreage burned per year for the ten year planning period (1986-1995) is 96.2 fires, burning 56,459.5 acres. The following is a breakdown of fires and acres by Fire Management Zone (FMZ) for the Central California Region:

Fire Management Zone	Fires per Year	Acres per year
FMZ-1	24.6	15,444
FMZ-2	20.9	31,902
FMZ-3	7.7	6.8
FMZ-4	25.2	3,955
FMZ-5	17.8	5,152

The CCR FMZ's are further delineated by Representative Locations (RL's). These RL's are comprised of Phase One Fire Planning Polygons (planning unit areas), which reflect similarities in overall land management objectives (as identified in BLM resource management plans) and land management issues (eg. critical habitat, wilderness, urban interface, etc.). RL's are further refined through identifying similarities in initial attack timeframes and attack resources, fire frequency and occurrence, economic resource values, fire management objectives.

Each CCR Representative Location contains a "centroid", which is a point that represents the RL as a specific geographical location. For fire planning purposes, this centroid is that point used to calculate initial attack timeframes for attacking and controlling fires within that specific RL polygon.

Phase One Fire Planning Objectives Correlation & Summary

FMZ & Rep. Location with Phase One Polygons	Phase One Desired Burned Acres per Decade	Ten Year Historic Acreage from PCHA	Phase One Objective / Actual % Success at MEL
FMZ 1 Valley Grasslands			
RL - 1 Carrizo Plain ACEC Caliente/Temblor NCLWMA SMA Caliente Mtn. WSA	40,000 acres, grass only. (Rx Burn 10,000) Desert Scrub is not fire dependent.	8,125	500 ac. 90% / 72%
RL - 2 Alkali Sinks ACEC Goose Lake ACEC Chico Martinez ACEC Kettleman Hills ACEC Lokern ACEC Bittercreek SMA Bakersfield Valley Custodial Panoche WSA Hollister Valley Custodial	34,000 acres; grass only. Desert Scrub is not fire dependent.	146,314	550 ac. 90% / 85%
FMZ 2 Chaparral			
RL-1 Cypress Mtn. ACEC Salinas River ACEC Frog Pond SMA Hopper Mountain SMA Huasna Peak SMA Irish Hills SMA Rusty Peak SMA Coastal Custodial Santa Lucia Wilderness Machesna Mtn. Wilderness Garcia Mtn. WSA Machesna WSA Tierra Redonda ACEC Pt. Sal ACEC TOTAL	Grass Shrub Woodland 100 100 200 400 75 200 75 50 250 75 50 4000 400 700 160 160 77 77 302 6,037 910	1,098	10 ac. 90% / not run
RL 2 Blue Ridge ACEC Case Mountain ACEC North Fork SMA TOTAL	Grass Shrub Woodland 1,000 100 4,000 150 100 200 5,100 350	9,889	10 ac. 90% / not run

FMZ & Rep. Location with Phase One Polygons	Phase One Desired Burned Acres per Decade	Ten Year Historic Acreage from PCHA	Phase One Objective / Actual % Success at MEL
FMZ 2 Chaparral continued RL3 Clear Creek Serp. ACEC San Benito Mtn. Research Natural Area	0	153	10 ac. 90% / not run
RL4 Pinnacles WSA Fort Ord BLM land Hollister Chap. Custodial	1,200 acres	14,267	10 ac. 90% / not run
RL5 S. Yuba River Rec. Area	1,400 acres	1832	10 ac. 90% / not run
RL6, 8, 11 Folsom Custodial	10,000 acres	40,975	
RL7 N. Fork American River	500 acres	25	
RL9 Red Hills Mgt. Area	500 acres crush and burn	3,836	
RL10 Merced River	7,500 acres	15,705	
RL12 Squaw Leap Mgt. Area	400 acres	320	
FMZ 3 Kern Plateau			
RL - 1 Deer Springs SMA Chimney Peak Wild. Domeland Wilderness Sacatar Trail Wild. Owens Peak Wild. Walker Pass NHL	AREA WIDE: 3,000 acres in PJ 4,000 acres in Sage	68	10 ac. 90% / 99%

FMZ & Rep. Location with Phase One Polygons	Phase One Desired Burned Acres per Decade	Ten Year Historic Acreage from PCHA	Phase One Objective / Actual % Success at MEL
FMZ 4 Owens Valley			
RL - 1 Campgrounds Travertine ACEC Bodie Bowl ACEC Keynot Peak ACEC Inyo Mountains Wilderness Fish Slough ACEC Alabama Hills SMA Conway Summit ACEC Slinkard Valley ACEC Bodie/Bridgeport Mgt Areas TOTAL	Grass Schrub Woodland 20 5 100 20 20 20 200 200 50 1,200 1,200 95 1,520 1,420	1,280	10 ac. 90% / 87%
RL - 2 Remainder Owens Valley, Southern Inyos and Owens Lake MAs Long Valley M.A. Benton M.A. Granite Mountain M.A. TOTAL	Grass Schrub Woodland 50 60 10 20 50 100 100 50 1,000 1,000 160 1,180 1,100	38,267	40 ac. 90% / 94%
FMZ 5 Sierra			
RL - 1 Piute Cypress ACEC Erskine Creek SMA Granite Cave SMA Keysville SMA Horse Canyon ACEC South Sierra Custodial KER-311	30,000 acres Prescribed Burn	51,415	40 ac 90% / 87%
RL - 2 Kiavah Wilderness	2500 acres	99	50 ac. 90% / 64%
BBD Total	Rx Burn or fuels treatment acres = 88,372 Any type fire = 153,174 ac.		

Fire Management Zone B1 - Valley Grassland: 334,037 acres

FMZ B1 - Description

The Valley Grasslands Zone, dominated by annual grasslands with pockets of brush, consists of a number of management units that have been grouped under two Representative Locations (RL's) owing to the similarities in their fuel types:

RL - 1

Carrizo Plains ACEC
Caliente Temblor
NCLWMA SMA Caliente
Mountain WSA

RL-2

Alkali Sinks ACEC
Goose Lake ACEC
Chico Martinez ACEC
Kettleman Hills ACEC
Lokern ACEC
Bittercreek SMA
Bakersfield Valley Custodial
Panoche WSA
Hollister Valley Custodial

The land owned by BLM in this zone is a combination of widely scattered parcels and large holdings intermixed with private property. The principal uses of BLM land include livestock grazing, oil production and development, off-highway vehicle activity (OHV) in established areas and in trespass, hunting, and significant acreage with threatened and endangered (T&E) species habitat. In many areas of heavy development (agriculture and oil), it is the BLM administered lands that provide the only remnant habitat for T&E species. Commercial values are high on adjoining private properties and on the federal lands (both surface and subsurface) that have oil production and development. Urban-wildland intermix is an increasing problem.

FMZ B1 - Fire History/Fire Behavior

The average historic fire size is 532 acres, with the largest equal to 3,380. Fire spreads quickly after grasses have cured. Late spring and summer can bring rapid rates of fire spread through the flashy fuels pushed by ever-present afternoon winds. Quarter mile high dust devils are frequent testaments to the atmospheric instability common on warm days, especially around Soda Lake. Salt bush fields, tumbleweed tracts, and dry farm wheat fields break up grass fields. A fire averaging 300 acres are common and there is potential for 4,000 acre fires. Fires starting in the valley floor will burn rapidly till sunset and are usually catchable before the next burning period.

Fire starts are usually vehicle or recreation visitor related. Only ditches in the valley limit cross-country access by vehicle. The second major cause of fires is lightning. Popularity of these areas are growing with both the scientific and recreational user.

FMZ B-1 AVERAGE ANNUAL FIRE HISTORY DATA BY SIZE CLASS 1987 - 1996

SIZE CLASS	A	B	C	D	E	F	TOTAL
No. of Fires	3.5	6.7	4.8	2.7	3.3	3.6	24.6
No. of Acres	.46	18.26	167.8	434.7	1,752.2	13,070.5	15,443.94

FMZ B1 - Fire Management & Suppression Resources

Wildland fire protection in this area is primarily mutual aid with the local counties, each agency having responsibility for its own jurisdiction and sending units typically proportional to its acreage and/or responsibility. A program of closest necessary resources responding to fires, no matter what agency, is fiscally balanced with agency responsibility.

FMZ B1 - Fire Management Objectives & Constraints

(See Phase I narrative)

Fire Management Zone B2 - Chaparral: 30,142 acres

FMZ B2 - Description

Public land ownership pattern ranges from small isolated parcels to relatively large tracts of public land with some intermingled private property. This area is dominated by chaparral with scattered oak woodlands and annual grasslands or meadows. Within this Zone there are 12 Representative Locations (RL's) which incorporate between one and fourteen management units. The coastal custodial area, representing two thirds of this Zone is designated for repositioning to private ownership or other agency management. In the future this will move BLM management more and more out of the area.

FMZ B2 - Fire History/Fire Behavior

The chaparral brushland vegetation type along the coastal and inner-coastal mountains of central and southern California, varies in form and species domination, but generally burns in a similar manner. Dead to live fuels ratios are high in old (30+ years) stands and live fuel moisture drops to critical levels during the annual cycle. Very high fuel moistures are present during spring growth periods which all but prevents the brush from burning. In the late

summer and fall period live fuel moistures drop, to critical levels that allow it to burn as if dead. Due to the steep terrain features, the rates of spread are very high and fires move from private to BLM lands very rapidly.

Fire season and fire behavior are closely tied to live fuel moisture and amount of dead material. The older the brush is the less live fuel moisture counts. Fire season generally begins once the live fuel moistures start to decline. This occurs after the growing cycle ends in late spring, and dependent on the last precipitation of the season. Spring time droughts can bring early seasons in May, while wet springs can delay fires till mid August. The normal seasonal trend is for most of the fires to occur between June and November, with the more intense fires occurring later in the season. Once chaparral reaches 50 to 60 years, any dry spell can bring fires any time of the year in the mild winter climate along the coast.

The fire weather throughout this zone is hot and very dry summers. Sundowner and north and east winds are common during fall and drastically influence fire behavior. High summer temperatures and low relative humidities all contribute to chaparral's reputation as one of the worst fuel types for wildland fire suppression. Terrain throughout the zone ranges from moderate to very steep slopes with the predominant aspect of south to southwest. Rates of spread, burning indexes and fire intensity levels can be extremely high. Fire starts during the hot dry period can result in large fires where no direct attack is possible due to extreme fire behavior.

The primary causes of fires in this zone are equipment/vehicle use and arson. Lightning accounts for 30% of the fires. There is a significant arson problem in some areas. Other common causes are abandoned campfires and fireworks.

FMZ B2 - Fire Management & Suppression

There are no BLM fire management facilities in this area. Wildland suppression action is provide by the California Department of Forestry and Fire Protection (CDF) under cooperative fire agreement. The CDF have engine stations, inmate crew camps, and air bases located throughout this FMZ. Therefore, BLM's primary involvement is to send an agency representative and an environmental specialist to the fire once it exceeds initial attack to assure environmental concerns are known. Because of extensive CDF resources already in place, scattered land patterns and political constraints, there are no plans at this time for BLM force account protection in this zone.

FMZ B2 - Fire Management Objectives & Constraints

(See Phase I narrative)

Fire Management Zone B3 - Kern Plateau: 120,195 acres

FMZ B3 - Description

The Kern Plateau Zone incorporates the following managment units into one Representative Location (RL):

Deer Springs SMA
Chimney Peak Wilderness
Domeland Wilderness
Sacatar Trail Wilderness
Owens Peak Wilderness
Walker Pass NHL

The primary uses of the area are recreation, with three BLM campgrounds, the Pacific Crest Trail and four wildernesses; and livestock grazing with 7 allotments totaling 102,317 acres. The four wilderness areas involve 110,598 acres. There are significant archeological resources and a very high interest in the management of the area by local Native Americans. The area is also important winter range for mule deer, and year round habitat for black bear, mountain lion and upland game.

FMZ B3 - Fire History/Fire Behavior

The fire history in this fire management zone is one of multiple small lightning fires. This area averages 10 fires per year with several "natural outs" being reported that require no suppression action other than patrol. Ninety-one percent of the fires in the data base are size class A with the rest size class B/C. In the ten years studied 68 acres burned. There are fire scars in the area of large proportion, but these are not included in the fire history data base. The largest fire reported in the past 10 years was a 50 acre lightning fire. There was some class D and E fires in the past 1960's and 70's.

FMZ B-3 AVERAGE ANNUAL FIRE HISTORY DATA BY SIZE CLASS: 1987 - 1996

SIZE CLASS	A	B	C	D	E	F	TOTAL
No. of Fires	7.0	.6	.1	0	0	0	7.7
No. of Acres	.73	1.07	5.0	0	0	0	6.8

FMZ B3 - Fire Management & Suppression Resources

FMZ B3 - Fire Management Objectives & Constraints

(See Phase I narrative)

Fire Management Zone B4 - Owens Valley: 750,050 acres

FMZ B4 - Description

The Owens Valley Zone incorporates the following managment units into two Representative Locations (RL's):

RL-1

- Campgrounds
- Travertine ACEC
- Bodie Bowl ACEC
- Keynot Peak ACEC
- Inyo Mountains Wilderness
- Fish Slough ACEC
- Alabama Hills SMA
- Conway Summit ACEC
- Slinkard Valley ACEC
- Bodie/Bridgeport Mgt. Areas

RL-2

- Remainder Owens Valley
- Southern Inyos and Owens
- Lake Mas
- Long Valley MA
- Benton MA
- Granite Mountain MA

RL-1 is a combination of ten units of land scattered throughout the Bishop Field Office (BFO), that are not necessary adjacent to one another, but are representative of a similarly desired fire occurrence level. Polygon B4-1 includes four campgrounds located within the BFO; Travertine ACEC, Bodie Bowl ACEC, Keynot Peak ACEC, Inyo Mountains Wilderness, Fish Slough ACEC, Alabama Hills Special Management Area, Conway Summit ACEC, Slinkard Valley WSA/Slinkard Valley ACEC and the Bodie/Bridgeport Management Areas. These areas are topographically varied and include the following dominant plant community types (Holland 1986); alkali meadow, aspen, bristlecone pine, desert-scrub, Great Basin scrub, Jeffrey pine, Jeffrey pine/white fir, marsh, pinyon-juniper woodlands, riparian scrub and subalpine sagebrush scrub.

RL-2 represents a combination of five units. These lands are scattered the length of the Bishop Field Office's management jurisdiction. Diverse recreational activities comprise the majority of uses in these areas. Livestock grazing allotments (sheep and cattle) also make up portions of this polygon except for the Keynot Peak and Inyo Mountains Wilderness. This polygon also supports critical winter range for two mule deer herds, habitat for pronghorn, and sagegrouse as well as endangered fish and special status plant habitat. The primary management emphasis for this polygon is to maintain and enhance native plant and animal species, cultural and archaeological sites and provide for sustainable multiple use activities.

FMZ B4 - Fire History/Fire Behavior

The average annual fire occurrence is 5.9 with an average of 11.3 acres burned annually. The

majority of these fires are small (10 acres or less) but occasionally become large due to high winds and complex topography. The zone is significantly affected by the orographic influences of the Sierra Nevada and White Mountain ranges leading to hot/dry weather in the summer with lightening activity increasing around August and September. Typical fire weather is dry with low humidities and gusty winds. The fire season generally runs from Late May to October.

Multiple fire starts are common during lightning activity, but coordination with other fire agencies has resulted in sufficient initial attack forces. Without this cooperative assistance BLM would be unable to contain all of it's own fires on multiple start days.

FMX B-4 AVERAGE ANNUAL FIRE HISTORY DATA BY SIZE CLASS 1987 -1996

SIZE CLASS	A	B	C	D	E	F	TOTAL
No. of Fires	18.7	3.5	1.5	0.5	0.4	0.6	25.2
No. of Acres	2.05	5.1	67.0	98.3	298.3	3484	3,954.75

FMZ B4 - Fire Management & Suppression

The BLM, US Forest Service and CDF have fire management facilities in the zones identified in Polygon B4-1. BLM has a two engine station (1 Type III and 1 Type IV) one mile North of Benton on State Route 6. At the Conway Summit BLM station, there is a Type III engine and at the Topaz Interagency station BLM has a type IV engine. The Toiyabe National Forest also has a Type IV. Previously, other BLM equipment has been tried at various locations throughout the zone but at the present time, this mix appears to work the most efficiently.

Owens Valley CDF operates a conservation camp north of Bishop with 5 CDD convict hand crews, 1 Type III engine and 1 project dozer. There are eighteen separate fire protection districts located throughout the Inyo and Mono county areas that comprise this Fire Management Zone (FMZ). There is some centralized dispatching for these volunteer departments, but most operate as independent entities. The majority of dispatching originates from the Owens Valley Interagency Communications Center (OVICC) located in Bishop. CDF pulled out of OVICC in 1995. The Inyo National Forest has 6 fire stations throughout the valley. The BLM California Desert and Carson City Districts and Toiyabe National Forest also have resources that respond to initial attack in certain areas within the zone. Continued interagency coordination is essential for all wildland fires that threaten developed rural areas in the Owens Valley

FMZ B4 - Fire Management Objectives & Constraints

(See Phase I narrative)

Fire Management Zone B5 - Sierra: 369,674 acres

FMZ B5 - Description

The Sierra Zone incorporates the following managment units into two Representative Locations (RL's):

RL - 1

Piute Cypress ACEC
Erskine Creek SMA
Granite Cave SMA
Keysville SMA
Horse Canyon ACEC
South Sierra Custodial

RL - 2

Kiavah Wilderness

This Zone is a transition zone where three vegetation communities come together. There is the desert shrub community, the Blue Oak-Foothill Pine woodlands, and montane/mixed chaparral zone. However these vegetation types are all fairly open with annual grass being the predominant carrier of fire.

The predominate use of the area is recreation. Camping, fishing, hunting and OHV activities are quite common on BLM land. There are grazing allotments and many areas managed specifically for wildlife habitat throughout the zone. Another predominant use on adjacent private lands is retirement living. Mobile home parks to developed "exclusive living" housing tracts dot the area complicating the "re-introduction of fire into the ecosystem".

FMZ B5 - Fire History/Fire Behavior

Historically within the zone BLM averages 16.4 fires, burning 5,150 acres annually. The majority of all the fires are in size class A and B, but there usually is at least one large fire a year. Multiple fires may occur during periods of lightning but normally do not become a significant problem. Fire occurrence is predominantly between May and September.

Fire cause is 24% lightning and 76% human, with the large acreage associated with human-caused fires. The major anthropic causes of these fires, starting with the most frequent, are equipment use, arson, children, campfires, fireworks, and debris burning. Fire costs are proportionate to acreage, although structure protection requires a large commitment of interagency suppression forces. Land ownership patterns are quite intermingled. Private (both SRA and LRA under Kern County jurisdiction), BLM, and USFS lands occur throughout the valley with no one agency controlling a substantial block. A fire in one jurisdiction will most likely soon affect another.

FMZ B-5 AVERAGE ANNUAL FIRE HISTORY DATA BY SIZE CLASS 1987 - 1996

SIZE CLASS	A	B	C	D	E	F	TOTAL
No. of Fires	6.1	5.5	3.4	1.0	.9	.9	17.8
No. of Acres	.75	14.1	137.6	172.6	498.3	4,328.1	5,151.5

FMZ B5 - Fire Management & Suppression Resources

Fire management facilities in the zone include BLM, USFS and Kern County Fire Department. The BLM has both type III and type IV engines that cover the South Fork Kern River country. A BLM water tender and type II dozer are located at the Kernville USFS workcenter. Almost all fires are dispatched on an interagency basis, with all three agencies usually responding. A unit on scene in less than 10 minutes in the peak fire season is almost mandatory to effect containment. Numerous additional resources are usually required.

FMZ B5 - Fire Management Objectives & Constraints

(See Phase I narrative)

III. Preparedness Program

The CCR is rated as a large organization using the guidelines in the "State FMO Guidance Formula Revisions". As a result of re-organizing the Bakersfield District into individual Field Offices, the previous Bakersfield District Fire Management staff has evolved into a "regional" fire management organization that is responsible for oversight, administration and coordination of the fire program in the Central California Region, which collectively consists of the four individual field offices (Bishop, Bakersfield, Hollister & Folsom Field Offices).

The CCR Fire Management Organization consists of a Regional FMO as well as a Regional FCO, who is responsible for coordination and oversight of fire control operations in the Region, as well as providing direct supervision of the National Resources assigned to CCR

The CCR FMP at MEL identifies the following staffing level needed to accomplish the Region's District's fire management goals:

- CCR will fund and staff one Regional FMO (GS-12) and one Regional FCO (GS-11).
- CCR will fund and staff four Field Office Fire Management Officers (Bakersfield FMO GS-11, Bishop FMO GS-11, Folsom FMO GS-9/11, Hollister FMO GS-9/11).
- CCR Type III engines will be staffed with LTCS Fire Crew Supervisors (GS-08 Captains), Career Seasonal Asst. Fire Crew Supervisor (GS-07 Assistant Captains), two Career Seasonal Engine Operators (GS-06/GS-05), and four seasonal positions.
- CCR Type IV engines will be staffed with a Career Seasonal Fire Crew Supervisor (GS-07 Captain), a Career Seasonal Engine Operator (GS-06), and three fire fighter positions.
- This staffing design provides for 7-day Duty Officer coverage required for safe fire management and enables CCR to sustain 7-day manning of engines and aircraft as required by our BLM California State-wide staffing standards.
- A new station is being planned in FMZ 4, Owens Valley, combining the Conway and Benton Stations. This new facility, referred to as the Mono Basin Station, proved cost effective through IIAA.

CCR Engine Crew Staffing Standards:

- Engine crew size in the Central California Region is designed around safety, type of engine and providing seven day-a-week coverage on heavy engines. Seven day-a-week coverage capability is an important factor with the increased wild land urban interface problem, remote station locations, and expanding recreation use.
  Staffing seven personnel on a rotational basis for each heavy engines allows 5 personnel effective 7 days a week. Staffing five personnel on a rotational basis for each light engines allows 3 personnel effective 7 days a week. Staffing standards are:

Engine Type	Crew Size	Minimum Daily Coverage
Type III	5 (daily effective)	7 days
Type IV	3 (daily effective)	7 days

Helicopter Operations:

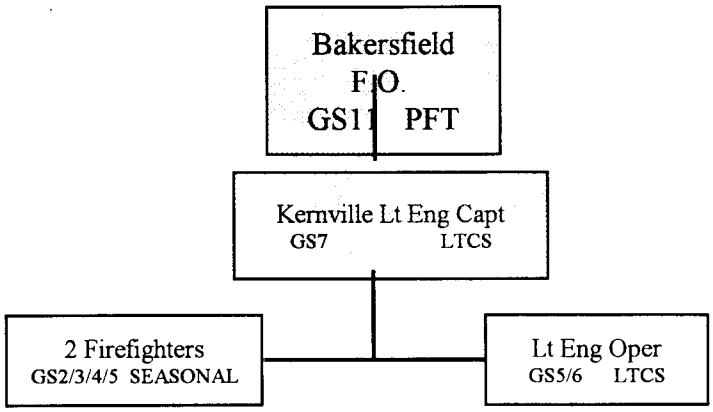
- Central California Region helicopter operations consists of a medium, Type II, helicopter with an interagency 16 person flight crew. All overhead are BLM employees (including a PFT Helicopter Manager, an Assistant Helicopter Manager, and two LTCS Squad Leaders). Seven of the twelve helicopter crew members are Kern County employees. The crew is trained in Helishot and Helitack operations, and rappel qualified. The rappel program has been assessed using the IIAA process and found cost effective, through a shorter delivery time of firefighters to the fire line. The 16-person crew size provides a minimum coverage of 11 personnel per day, seven days-a-week. This allows for 9 Helishots on the helicopter and 2 Helitacks on the two helicopter support vehicles (Helitender and Crew Van). Functionally, this permits 9 firefighters to be distributed for initial attack on a single or multiple fire situations. The helicopter is also capable of delivering 300 gallons of water with a bucket.

Support Vehicles:

- There are 16 support vehicles in the CCR Fire Management Program. Six of these vehicles are support for the Regional FMO, Regional FCO, and the four Field Office FMO's. These fire staff vehicles enable the staff to inspect fire stations, respond effectively to fires on or threatening BLM land, as well as in CDF Direct Protection Areas, provide logistical support and attend numerous cooperator planning and operational meetings.
- The remaining 10 vehicles are used in support functions, a stakeside for the warehouse, 3 repair trucks for the mechanic, radio technician, and equipment manager, and fuels management/fire prevention/logistical project vehicles at Carrizo, South Fork, Chimney Peak, Kennedy Meadows, Mono Basin and Topaz.

CCR Changes and Additions Identified by the 1998 Fire Plan:

Bakersfield Field Office:



A Type IV Engine Module to be located at the Forest Service's Kernville Work Center with seven day coverage.

Bishop Field Office

A new Mono Basin Fire Station is proposed to be located near junction of Highway 395 and Poleline Road just north of Mono Lake. This new fire station will consolidate two existing fire stations, Benton and Conway Summit. The new Mono Basin Station will be staffed by the two Type 3 engine modules from Conway and Benton Fire Stations, and will move the Benton Type 4 engine module to Bishop.

LABOR PLANNING WORK SHEET

FIRE (PFT) STAFFING PLAN

DISTRICT: Central California Region PAGE 1 OF 2

POSITION	NAME/STATUS	GS/WG	2810 W.M.	2823-01 W.M.
CCR FMO	Wehking	GS-12	10	
CCR FCO	Bates	GS-11	10	
Field Office FMO Bakersfield - 016	Sarzotti	GS-11	7	
Field Office FMO Bishop - 017	Brown	GS-11	7	
Field Office FMO Folsom - 018	Hood	GS-9		10
Field Office FMO Hollister- 019	vacant	GS-9		10
Fleet Manager	Luallin	WS-10	7	
Heavy Equip. Mechanic	Minnick	WG-11	7	
Warehouse Mgr.	Martinez	WG-6	7	
Helicopter Mgr	Whitney	GS-9	7	
Hot Shot Crew Supt.	Escobar	GS-9	7	
Bakersfield Fire Prev Off	Santiago	GS-9	7	
Heavy Equipment Operator	Davis	WG-10	7	
Heavy Equipment Operator	Wylie	WG-10	7	
Heavy Equipment Operator	Stewart	WG-10	7	
Heavy Equip. Operator	Stamps	WG-10	7	

LABOR PLANNING WORK SHEET

FIRE (PFT) STAFFING PLAN

DISTRICT: Central California Region

POSITION	NAME/STATUS	GS/WG	2810 W.M.	2823 W.M.
Dispatcher - OVICC	Hollowell	GS-7	10	
Dispatcher - Bakersfield	Lowry	GS-7	5	
Dispatcher / Training Officer Bakersfield	MacWhinney	GS-6	7	
Dispatcher Bakersfield	Duff	GS-6	5	

An equivalent of one PFT dispatcher is paid for by Law Enforcement and other non 2810 codes.

The four WG 10 equipment operators are needed for two dozers and 3 water tenders to provide 7 day coverage during preparedness and 24 hour operation on prolonged suppression assignments.

LABOR PLANNING WORK SHEET

NON-FIRE (PERMANENT) STAFFING PLAN

POSITION	NAME	GRADE	2810 W.M.	2823 W.M.
AFO Manager - Operations	Bogacki	GS-12	2	
Purchasing	Lewis	GS-6	2	
Personnel	Vacant	GS-6	2	
Property	Chevalier	GS-7	2	
Clerical	various		10	
District Manager	Fellows	GM-14	1	
Public Affairs	Mercer	GS-11	1	
Fire Admin Asst	M Sarzotti	GS-7	7	
L.E. Rangers	various	GS-9/11	8	
Radio Technician	McGuire	GS-11	5	
Radio Technician	Hartman	GS-11	5	

LABOR PLANNING WORK SHEET

FIRE-CAREER SEASONAL STAFFING PLAN

POSITION	NAME	GRADE	2810 WM	START DAY
Dispatcher - Bakersfield	Kleinman	GS-6	5	4/1
Lt Eng Capt - Topaz	vacant	GS-7	7	4/1
Lt Eng Oper - Topaz	vacant	GS-6	6	5/1
Hvy Eng Capt - MB	vacant	GS-8	7	4/1
Hvy Eng Asst Capt. - MB 3132	Hemmie	GS-7	7	4/1
Hvy Eng Oper - MB 3132	Farrell	GS-6	6	5/1
Hvy Eng Capt - MB 3131	vacant	GS-8	7	4/1
Hvy Eng Asst Capt. - MB 3131	Fowler	GS-7	7	4/1
Hvy Eng Oper.- MB 3131	vacant	GS-6	6	5/1
Lt Eng Capt - Bishop	vacant	GS-7	7	4/1
Lt Eng Oper - Bishop	vacant	GS-6	6	5/1
Lt Eng Capt - CP	Newman	GS-7	7	4/1
Lt Eng. Oper - CP	vacant	GS-6	6	5/1
Lt Eng Capt - KM	vacant	GS-7	7	4/1
Lt Eng. Oper - KM	Horney	GS-6	6	5/1
Hvy Eng Capt - SF	vacant	GS-8	7	4/1
Hvy Eng Asst Capt - SF	Adams	GS-7	7	4/1
Hvy Eng Oper - SF	Watkins	GS-6	6	5/1
Lt Eng Capt - SF	vacant	GS-7	7	4/1

POSITION	NAME	GRADE	2810 WM	START DAY
Lt Eng Oper - SF	vacant	GS-6	6	5/1
Lt Eng Capt - Kvlle	vacant	GS-7	7	4/1
Lt Eng Oper - Kvlle	vacant	GS-6	6	5/1
Hvy Eng Capt. - Bfld	vacant	GS-8	7	4/1
Hvy Eng Asst Capt. - Bfld	vacant	GS-7	7	4/1
Hvy Eng Oper - Bfld	vacant	GS-6	6	5/1
Hvy Eng Capt - Czo	vacant	GS-8	7	4/1
Hvy Eng Asst Capt. - Czo	Chambers	GS-7	7	4/1
Hvy Eng Oper - Czo	Young	GS-6	6	5/1
Lt Eng Capt - Czo	vacant	GS-7	7	4/1
Lt Eng Oper - Czo	Ellison	GS-6	6	5/1
Assistant HS Supt.	Napoles	GS-8	7	4/1
HS Squad Leader	White	GS-6/7	7	4/1
HS Squad Leader	Bell	GS-6/7	7	4/1
HS Squad Leader	vacant	GS-6/7	7	4/1
HS Skilled FF Seasonal/Apprentice	Mathieson	GS-4/5/6	6	5/1
Helicopter Asst Mgr - Keene	Charley	GS-8	7	4/1
Hel Squad Boss - K	Mortenson	GS-7	6	5/1
Hel Squad Boss - K	vacant	GS-7	6	5/1
Helitack Asst Mgr - Bridgeport	Toth	GS-8	6	5/1
Bishop FMS	vacant	GS-7	7	Proposed

LABOR PLANNING WORK SHEET

FIRE SEASONAL STAFFING PLAN (2810/2823 ONLY)

FUNCTIONAL POSITION	G.S.	STATION/ LOCATION	EMPLOYMENT PERIOD	NUMBER OF P/P
Engines				
Firefighter	4	Topaz	5/01 - 9/15	9
Firefighter	2/3	Topaz	5/01 - 9/15	9
Skilled FF	5	Mono 3131	5/01 - 9/15	9
Firefighter	4	Mono 3131	5/01 - 9/15	9
Firefighter	3	Mono 3131	5/01 - 9/15	9
Firefighter	2	Mono 3131	5/01 - 9/15	9
Skilled FF	5	Mono 3132	5/01 - 9/15	9
Firefighter	4	Mono 3132	5/01 - 9/15	9
Firefighter	3	Mono 3132	5/01 - 9/15	9
Firefighter	2	Mono 3132	5/01 - 9/15	9
Firefighter	4	Bishop	5/01 - 9/15	9
Firefighter	2/3	Bishop	5/01 - 9/15	9
Firefighter	4	Chimney Peak	5/01 - 9/15	9
Firefighter	2/3	Chimney Peak	5/01 - 9/15	9
Asst. Eng. Oper.	4	Kennedy Mdw.	5/01 - 9/15	9
Firefighter	2/3	Kennedy Mdw.	5/01 - 9/15	9
Skilled FF	5	South Fork	5/01 - 9/15	9
Firefighter	4	South Fork	5/01 - 9/15	9
Firefighter	3	South Fork	5/01 - 9/15	9
Firefighter	2	South Fork	5/01 - 9/15	9

FUNCTIONAL POSITION	G.S.	STATION/ LOCATION	EMPLOYMENT PERIOD	NUMBER OF P/P
Asst. Eng. Oper.	4	South Fork	5/01 - 9/15	9
Firefighter	2/3	South Fork	5/01 - 9/15	9
Firefighter	4	Kernville	5/01 - 9/15	9
Firefighter	2/3	Kernville	5/01 - 9/15	9
Skilled FF	5	Bakersfield	5/01 - 9/15	9
Firefighter	4	Bakersfield	5/01 - 9/15	9
Firefighter	3	Bakersfield	5/01 - 9/15	9
Firefighter	2	Bakersfield	5/01 - 9/15	9
Skilled FF	5	Carrizo	5/01 - 9/15	9
Firefighter	4	Carrizo	5/01 - 9/15	9
Firefighter	3	Carrizo	5/01 - 9/15	9
Firefighter	2	Carrizo	5/01 - 9/15	9
Firefighter.	4	Carrizo	5/01 - 9/15	9
Firefighter	2/3	Carrizo	5/01 - 9/15	9
Firefighter.	4	Kern WL Ref	5/01 - 9/15	9
Firefighter	2/3	Kern WL Ref	5/01 - 9/15	9
Water Tenders				
W.T. Relief Oper.	WG8	Kernville	5/1 - 9/15	9
W.T. Relief Oper.	WG8	Bakersfield	5/1 - 9/15	9
W.T. Relief Oper.	WG8	Bakersfield	5/1 - 9/15	9
W.T. Relief Oper.	WG8	Carrizo	5/1 - 9/15	9

FUNCTIONAL POSITION	G.S.	STATION/ LOCATION	EMPLOYMENT PERIOD	NUMBER OF P/P
Dozers				
Dozer Walker	4/5	Kernville	5/15 - 9/30	9
Dozer Walker	4/5	Bakersfield	5/15 - 9/30	9
Dozer Walker	4/5	Bakersfield	5/15 - 9/30	9
Hot Shots				
Skilled FF Seas/Apprentice	5/6	Bakersfield	4/11 - 9/17	11
Firefighters	5	Bakersfield	4/11 - 9/17	11
Firefighters	5	Bakersfield	4/11 - 9/17	11
Firefighters	4	Bakersfield	4/11 - 9/17	11
Firefighters	4	Bakersfield	4/11 - 9/17	11
Firefighters	4	Bakersfield	4/11 - 9/17	11
Firefighters	4	Bakersfield	4/11 - 9/17	11
Firefighters	3	Bakersfield	4/11 - 9/17	11
Firefighters	3	Bakersfield	4/11 - 9/17	11
Firefighters	3	Bakersfield	4/11 - 9/17	11
Firefighters	3	Bakersfield	4/11 - 9/17	11
Firefighters	3	Bakersfield	4/11 - 9/17	11
Firefighters	2	Bakersfield	4/11 - 9/17	11
Firefighters	2	Bakersfield	4/11 - 9/17	11

FUNCTIONAL POSITION	G.S.	STATION/ LOCATION	EMPLOYMENT PERIOD	NUMBER OF P/P
Helicopters				
Hel Crw Member	5/6	Keene	5/01 - 9/15	9
Hel Crw Member	5	Keene	5/01 - 9/15	9
Hel Crw Member	4	Keene	5/01 - 9/15	9
Hel Crw Member	4	Keene	5/01 - 9/15	9
Hel Crw Member	4	Keene	5/01 - 9/15	9
Hel Crw Member	3	Keene	5/01 - 9/15	9
Hel Crw Member	3	Keene	5/01 - 9/15	9
Hel Crw Member	4/5	Bridgeport	5/15 - 9/15	9
Hel Crw Member	4/5	Bridgeport	5/15 - 9/15	9
Support				
Lookout	4/5	Bald Mountain	5/15 - 9/30	9
Dispatcher	4/5	Bakersfield	5/01 - 9/15	9
Dispatcher	4/5	Bakersfield	5/01 - 9/15	9
Dispatcher	4/5	Bishop	5/01 - 9/15	9

The following organizational table provides a direct comparison between the 1994 Fire Management Activity Plan's most efficient level (MEL) organization and the MEL organization for this 1999 FMAP update (starting next page).

Wildfire Prevention and Education Program

CCR will implement the Wildfire Prevention Workload Analysis (PWA2) as an integrated element of the District's fire management program through the Fire Management Plan (FMP). Wildfire prevention programs are directed towards ignitions which pose the greatest potential to cause unacceptable damage or losses.

Risks (Ignitions): Historically, CCR has experienced a pattern of very high human use on public lands and other federal & private lands adjacent to BLM. The average shows the human caused fire incident rate to be at 70% and lightning/natural fires at 30%. Arson causes 14% of these human caused fires. Arson fires have moved upward each year throughout BBD. The human risks with the highest priority are in urban interface/intermix areas, power lines, equipment use, and recreational use.

Hazards (Fuels): Is used to describe the relationship between fuels and topography in a given compartment and how fire behavior will affect the values in each area. CCR based each compartment's hazardous fuels on the NFFL Fuel Model rating system. A hazard value component of High, Medium, or Low, was then assigned to each compartment based on the fuel model and the type of slope which best represented the majority of fuels whose ignition would threaten the loss or damage of the values in that given compartment.

Fuel Model #1 Annual Grass
Fuel Model #2 Desert Scrub/Sage Grass
Fuel Model #3 Tule Reed
Fuel Model #4 Chaparral
Fuel Model #6 Pinyon Juniper
Fuel Model #9 Timber/Hardwoods

SLOPE CLASS

Fuel Model	**1** (0-25%)	**2** (26-40%)	**3** (41-55%)	**4** (56-75%)	**5** (75%+)
FM #1	Low	Medium	High	High	High
FM #2	Medium	High	High	High	High
FM #3	Medium	High	High	High	High
FM #4	Medium	High	High	High	High
FM #6	Low	Medium	High	High	High
FM #9	Medium	High	High	High	High

A compartment with a high hazard rating will be looked at for fuels management treatment. However only areas with high values will receive priority. See Fuels narrative.

Values: Are defined as social/political values, natural resources, and developed areas, where loss or destruction from unplanned wildland fire would be unacceptable. Protection of human life is the first priority in wildland fire management. Property and natural/cultural resources jointly become the second priority with protection decisions based on values to be protected and other considerations.

Values were identified and viewed as areas where unplanned wildland fire would not be acceptable in each compartment. The highest priorities are in urban interface/intermix areas, fire sensitive cultural resources, and Desert Scrub T & E Habitat.

Historical Fire Occurrence: A more in depth description of specific historical data for polygons and their representative locations (RL's), is in the Phase 1 narrative. Statistics show a total of 962 fires for 565,000 total acres burned. Human caused fires represent 70% of those fires and burned 79% of the acreage. The next chart shows statistical fire data from PCHA for each FMZ by specific fire cause, and by acres burned rounded to the nearest thousand.

Bakersfield 1987 - 1996

FIRES (#) ACRES BURNED (ROUNDED TO THE NEAREST ,000)
BY STATISTICAL CAUSE

FMZ	Litng	Equip	Smokg	Camp fires	DebBr	RRoad	Arson	Child	Misc	Total
Valley Grass	13 22,000	110 64,000	17 8,000	5 0	21 9,000	0 0	53 44,000	2 0	25 7,000	246 154,000
B2 Chap	33 37,000	52 156,000	19 3,000	18 9,000	24 39,000	0 0	36 70,000	8 0	19 6,000	209 319,000
B3 Kern Plat.	64 0	3 0	1 0	2 0	4 0	0 0	1 0	0 0	2 0	77 0
B4 Owens Valley	139 28,000	29 0	3 0	20 0	24 1,000	0 0	15 9,000	5 1,000	17 0	252 40,000
B5 Kern Valley	42 31,000	35 2,000	9 1,000	14 0	13 1,000	1 0	27 10,000	27 4,000	10 3,000	178 52,000
Total# **======** **Acres**	**291** **119,000**	**229** **221,000**	**49** **11,000**	**59** **10,000**	**86** **50,000**	**1** **0**	**132** **132,000**	**42** **4,000**	**73** **16,000**	**962** **565,000**

By looking at the statistical data for each FMZ, the main factors of human caused fires that burned in order by highest number are:

	Equipment use:	229
	Arson fires:	132
	Debris burning:	86
■	Miscellaneous:	73
■	Campfires:	59
■	Smoking:	49
■	Children:	42
■	Railroads:	1

CCR has been very active in prevention education efforts geared toward children and recreational/ camping use. This shows in the lower numbers of fire starts in these two categories on the statistical chart. New programs targeted toward arson and equipment use are being established through coordination with Kern County Fire and the oil field companies in west Kern county.

Priority Areas: Through the District Prevention Workload Analysis (PWA2), twenty-nine separate compartments have been established throughout CCR. Compartments that were rated as High Risk, High Hazard, & High Values (H,H,H), are the priority areas for fire prevention efforts. There are fourteen compartments labeled H,H,H that have priority in fire prevention, hazard reduction, and educational efforts. These priority compartments are:

Bakersfield:	Three Rivers	FMZ2-RL2
	South Fork	FMZ5-RL2
	Lake Isabella	FMZ5-RL1
	Walker Basin	FMZ5-RL1
Bishop:	Topaz	FMZ4-RL1
	Bodie	FMZ4-RL1
Folsom:	North Fork American	FMZ2-RL7
	Red Hills	FMZ2-RL9
	Merced River	FMZ2-RL10
	Squaw Leap	FMZ2-RL12
Hollister:	Panoche Hills	FMZ1-RL2
	Laguna/Clear Creek	FMZ2-RL3
	Pinnacles	FMZ2-RL4
	Fort Ord	FMZ2-RL4

CCR Fire Prevention and Education Plan: Fire prevention efforts have focused on education and public contacts. These general and specific fire prevention actions were developed from the 1991 Wildfire Prevention Plan and enhanced through the 1997 PWA2 Planning Process. Each Field Office is responsible for their own fire prevention programs.

The Bakersfield Field Office is the only area that has one full-time prevention/education specialist. This area has a well rounded fire prevention program and also has a very active hazard reduction program. There are several types of prevention efforts geared towards the mitigation of human caused fires. The program has focused mainly on prevention education through inter-agency programs such as the High Desert Fire Prevention Association (HDFPA). The traditional school programs, fairs, parades, rodeos with the use of Smokey Bear, including Smokey & the Pros and Smokey & the American Cowboy, along with the BLM Buddies program, and the use of Good Fire-Bad Fire educational programs have all proven to be effective. High visible patrols on high use holidays & weekends, education on campfire & fire use, sign maintenance, implementation of fire restrictions during high fire danger, home inspections of landowners within DPA, and coordination with law enforcement and rangers, are also being implemented. The Bakersfield Field Office is active in trespass investigation and cost recovery, prescribed fire education, and environmental education.

The Bishop Field Office fire prevention/education program currently consists of a few inter-agency fire prevention school programs, patrols by law enforcement rangers, and maintenance of fire prevention signs in campgrounds. The FMO in Bishop relies on his seasonal work force to maintain a fire prevention presence during fire season. As the fire program merges with the USFS, the Bishop Office needs to maintain coordination and inter-agency cooperation.

The main focus of the Folsom Field Office fire prevention/education program consists of patrols through the Law Enforcement Rangers, public contacts through community meetings stressing hazard reduction and fuels treatment, and Interagency coordination with CDF and USFS.

The Hollister Field Office fire prevention/education program relies upon law enforcement rangers during patrols, campfire programs by resource staff personnel, and the Salinas Rodeo. No fire prevention/educaiton position currently exists at this field office.

Each office is also responsible for their individual hazard reduction/fuels treatment programs. Prescribed burning and hazard reduction has become a high priority in BLM. Even though funding is available for prescribed burns, it still is a major task to implement these type of burn projects, especially if they are adjacent to urban-intermix and adjacent private lands. Each Field Office needs a dedicated fuels person to develop new and innovative ways to educate the public on smoke management, prescribed fire use, and the new Federal Fire Policy. Public education has to be a top priority if we are to maintain our prescribed burn programs stressing the difference between good fire and bad fire. Implementation responsibilities include coordination with Resource Staff on the NEPA process, inter-agency coordination, public scoping & cooperation, line preparation, and actual implementation of the burn site. This is a long process and our priority is to continue to emphasize the importance of the use of prescribed fire on public lands.

CR Prevention and Education Program Strategies: The PWA2 Analysis has provided formation which definines our historical prevention program. Further analysis is needed by each eld Office for each prevention compartment to develop effective prevention actions reducing fires caused by arson and equipment use. Additional prevention/education positions in Folsom, Hollister, and Bishop Field Offices are needed to a more effective prevention/education program throughout BBD.

The Bakersfield Field Office currently has one permanent-full time prevention/education position. Additional prevention responsibilities and fuels implementation workloads are shared with each Fire Captain depending on project location. Two work months are given to the LE Ranger program to assist in patrols, public contacts, campfire permits, fire investigation training, and ORV inspections. Due to the heavy regional workload, both fuels and prevention, a Fire Prevention Technician is needed to supplement the current prevention program and further develop strategies to reduce Arson and Equipment use fires.

The Bishop Office currently has a FMO that is responsible for Fire prevention along with the rest of his fire management duties. Two work months are given to the LE Ranger program to assist in patrols, public contacts, campfire permits, fire investigation training, and ORV inspections. As mentioned above a dedicated prevention/fuels position is needed to implement and maintain an effective prevention and fuels program.

The Folsom Office FMO is responsible for fire prevention actions and coordination. Three work onths are given to the LE Ranger program to assist in patrols, public contacts, campfire permits, re investigation training, and ORV inspections.

The Hollister Office currently coordinates local fire prevention actions through the Resource Staff. Three work months are given to the LE Ranger program to assist in patrols, public contacts, campfire permits, fire investigation training, and ORV inspections. With the addition of Fort Ord, a dedicated prevention/fuels position is needed to implement and maintain an effective prevention and fuels program.

Prevention dollars are utilized through 2810 preparedness costs and operational funds include vehicle F.O.R, mileage, travel, per diem, training, and prevention supplies/materials. Funds need to be allocated for training in fire investigation, fire information, public outreach, smoke management, prescribed fire, and general fire prevention.

The staffing plan below shows the PWA2 prevention/education organization proposed for CCR.

Staffing Plan	C/S or PFT Position	Seasonal FPT	LE Ranger Work months	Prevent. Vehicles	Ranger Vehicles***
Bakersfield Field Office	1 PFT Prevention & Education	0	2	1	2
Bishop Field Office	1 C/S Prevention & Education	0	2	1	2
Folsom Field Office			3		3
Hollister Field Office			3		3

***Partial funding for mileage and F.O.R

Fire Use and Fuels Program

response to the Bureau's major undertaking in hazardous fuel reduction, CCR is targeting high-risk urban interface and critical resource areas. Inter-agency projects are priority and a minimum of eight proposed fuels projects for each field office was a statewide PAWP target for FY98.

The CCR historic five year annual average is 7.3 projects treating 1,996 acres per year. After the push for increased fuels treatment projects was announced in 1996, CCR identified 12 mechanical treatment projects, 18 burns, and 2 fuelbreaks meeting the criteria for 11,600 acres in FY 98. A total of $62,000 under 1010 MLR code and $520,000 under 2823 hazard reduction code is planned for CCR in FY98.

In response to the new Federal Fire Policy, CCR has increased its interagency cooperation efforts. Besides cooperating in interagency projects, cooperation has expanded to deal with ever increasing issues and concerns. New and innovative ways to educate the public on prescribed fire/smoke issues are being developed. CCR is working on an MOU with San Joaquin APCD, are members of the California Inter-agency Smoke Council (IASC), and will coordinate and report prescribed burns through the use of the PFIRS program. There is also a need to streamline the NEPA process, both internally and on an inter-agency basis. Bakersfield Field Office has established the Southern Sierra Inter-agency Fuels Task Force to begin work on these issues. The Folsom Office has implemented a community based planning process involving the public through the full scope of the project, planning to implementation.

ch Field Office initiates their own fuels management projects. These projects are very labor ensive, involving field work for plan preparation, inter-agency and landowner coordination, plan writing and environmental assessment approvals, site preparation, logistics coordination, implementation of the project, and monitoring. Fuels positions are needed at the Field Office levels to ensure a solid hazard fuel reduction program.

Phase One Fire Planning Fuel Treatment/Rx Fire Correlation & Summary

FMZ & Rep. Location with Phase One Polygons	Phase One Desired Burned Acres per Decade	Ten Year Historic Acreage from PCHA	Phase One Objective / Actual % Success at MEL	Annual Needs	Average Annual Projects
FMZ 1 Valley Grasslands					
RL - 1 Carrizo Plain ACEC Caliente/Temblor NCLWMA SMA Caliente Mtn. WSA	40,000 acres, grass only. (Rx Burn 10,000) Desert Scrub is not fire dependent.	8,125	500 ac. 90% / 72%	Prescribed burns are done in spring for HR and plant diversity encourage ment. Burn 2,000 annually.	2 projects: 20K OT 4K FOR 10K Proc 6K Tvl $40K $20,000 each
RL - 2 Alkali Sinks ACEC Goose Lake ACEC Chico Martinez ACEC Kettleman Hills ACEC Lokern ACEC Bittercreek SMA Bakersfield Valley Custodial Panoche WSA Hollister Valley Custodial	34,000 acres; grass only. Desert Scrub is not fire dependent.	146,314	550 ac. 90%/ 85%	No burning necessary	

FMZ & Rep. Location with Phase One Polygons	Phase One Desired Burned Acres per Decade	Ten Year Historic Acreage from PCHA	Phase One Objective / Actual % Success at MEL	Annual Needs	Average Annual Projects
FMZ 2 Chaparral					
RL-1 Cypress Mtn. ACEC Salinas River ACEC Frog Pond SMA Hopper Mountain SMA Huasna Peak SMA Irish Hills SMA Rusty Peak SMA Coastal Custodial Santa Lucia Wilderness Machesna Mtn. Wilderness Garcia Mtn. WSA Machesna WSA Tierra Redonda ACEC Pt. Sal ACEC TOTAL	Grass Shrub Woodland 100 100 200 400 75 200 75 50 250 75 50 4000 400 700 160 160 77 77 302 6,037 910	1,098	10 ac. 90% / not run	Scattered BLM. Mostly range improvement burns. Phase one shows 6K acres need per decade. Should be interagency. 600 acres/yr.	1 project: 10K OT 2K FOR 5K Proc 10K Tvl $27K
FMZ 2 Chaparral continued L 2 Blue Ridge ACEC Case Mountain ACEC North Fork SMA TOTAL	Grass Shrub Woodland 1,000 100 4,000 150 100 200 5,100 350	9,889	10 ac. 90% / not run	CDF lead on burns containing BLM. Acreage accomplished through wildfire. Will cooperate with CDF. 500 acres per year.	Interagency burns with CDF/NPS/USFS average 1 per year in RL. 10K OT 2K FOR 5K Proc 10K Tvl $27K
RL3 Clear Creek Serp. ACEC San Benito Mtn. Research Natural Area	0	153	10 ac. 90% / not run		

FMZ & Rep. Location with Phase One Polygons	Phase One Desired Burned Acres per Decade	Ten Year Historic Acreage from PCHA	Phase One Objective / Actual % Success at MEL	Annual Needs	Average Annual Projects
RL4 Pinnacles WSA Fort Ord BLM land Hollister Chap. Custodial	1,200 acres	14,267	10 ac. 90% / not run	1 interagency with CDF for VMP, RL 3 and 4, Hollister Field Office 250 ac/yr.	250 acres 2K OT 2K Proc 2K Cont 2K Tvl $8K
RL5 S. Yuba River Rec. Area	1,400 acres	1832	10 ac. 90% / not run	Folsom FO: Prescribe burn 4 interagency burns w/ CDF &/or USFS 2,000 ac.	RX Burns: 32K OT 8K FOR 32K Proc 16K Tvl $88K
L6, 8, 11 Folsom Custodial	10,000 acres	40,975			
RL7 N. Fork American River	500 acres	25			
RL9 Red Hills Mgt. Area	500 acres crush and burn	3,836		Treat 250 acres using contract mech. equipment	Mech.Projs: 115K Cont 2K FOR 4K Tvl
RL10 Merced River	7,500 acres	15,705		around Urban Interface.	2K OT 2K Proc
RL12 Squaw Leap Mgt. Area	400 acres	320		Four to six projects per year	$125K

FMZ & Rep. Location with Phase One Polygons	Phase One Desired Burned Acres per Decade	Ten Year Historic Acreage from PCHA	Phase One Objective / Actual % Success at MEL	Annual Needs	Average Annual Projects
FMZ 3 Kern Plateau					
RL - 1 Deer Springs SMA Chimney Peak Wild. Domeland Wilderness Sacatar Trail Wild. Owens Peak Wild. Walker Pass NHL	AREA WIDE: 3,000 acres in PJ 4,000 acres in Sage	68	10 ac. 90% / 99%	Pinyons starting to die from Black Stain Root disease. Need thinning project for H.R. in non wilderness . Need Wildern. FMP. 5 ac/yr.	Cut, stack and burn piles. 2K OT 1K FOR 1K Proc 2K Tvl $ 6K
FMZ 4 Owens Valley					
L - 1 Campgrounds Travertine ACEC Bodie Bowl ACEC Keynot Peak ACEC Inyo Mountains Wilderness Fish Slough ACEC Alabama Hills SMA Conway Summit ACEC Slinkard Valley ACEC Bodie/Bridgeport Mgt Areas TOTAL	Grass Schrub Woodland 20 5 100 20 20 20 200 200 50 1,200 1,200 95 1,520 1,420	1,280	10 ac. 90% / 87%	Burn 1,000 acres per year in FMZ under low intensity prescribed burn.	Prescribed burns, totaling 1,000 acres. 10K OT 2K FOR 5K Proc 3K Tvl $20K
RL - 2 Remainder Owens Valley, Southern Inyos and Owens Lake MAs Long Valley M.A. Benton M.A. Granite Mountain M.A. TOTAL	Grass Schrub Woodland 50 60 10 20 50 100 100 50 1,000 1,000 160 1,180 1,100	38,267	40 ac. 90% / 94%		

FMZ & Rep. Location with Phase One Polygons	Phase One Desired Burned Acres per Decade	Ten Year Historic Acreage from PCHA	Phase One Objective / Actual % Success at MEL	Annual Needs	Average Annual Projects
FMZ 5 Sierra					
RL - 1 Piute Cypress ACEC Erskine Creek SMA Granite Cave SMA Keysville SMA Horse Canyon ACEC South Sierra Custodial KER-311	30,000 acres Prescribed Burn	51,415	40 ac 90% / 87%	2 Inter-agency burns. Priority HR chaparral patches near interface. 800 acres/yr. One Helitorch project. 10 acres fuelbbreak /HR	10K OT 2K FOR 5K Proc 13K Cont. 10K Tvl $ 40K Included in FMZ 3 $6K
RL - 2 avah Wilderness	2500 acres	99	50 ac. 90% / 64%	Waiting on Wilderness FMP	
BBD Total	Rx Burn or fuels treatment acres = 88,372 Any type fire = 153,174 ac.			7415 acres per year.	$381K $51/acre

Phase One has recognized a need for 15,300 acres to be burned annually. Of those, 8,800 acres are to be prescribed burn and some 265 of those will need mechanical treatment first. Under the Annual Needs column the existing Force Account, interagency agreements and historical cooperative projects were used to predict realistic projects given the phase one objectives. With priorities based on risks, hazards, and values, these projects for each RL were further refined and used to develop costs and listed under the Average Annual Projects column. Cost figures are based on local implementation costs of resources needed to safely accomplish previous burns and fuels projects. This process identified 7415 acres per year at an implementation cost of $381,000 or $51/acre.

The two vacant FMO positions at Folsom and Hollister Field Offices will be funded by Fuels. Partial support at Bakersfield and Bishop Field Offices is recognized with 3WMs each for two positions during the non activation period under 2810.

Fuels Workload By Field Office

	Bakersfield 016	Bishop 017	Folsom 018	Hollister 019
FMZ-RLs	1-1, 1-2, 2-1, 2-2, 3-1, 5-1, 5-2,	4-1, 4-2	2-5, 2-6, 2-7, 2-8, 2-9, 2-10, 2-11, 2-12	2-3, 2-4
Mechanical Fuels Projects per year	Two fuelbreaks with burns planned, 4.5 miles total FMZ5. Cut and burn project in FMZ 3.		4 projects using chipper/masticator contract.	
Acres	15	0	250	0
Prescribed Burns per year	7 burns, 2 grass; 5 chaparral	1 to 4, chaparral and/or sage	4 burns, 2 understory, 2 chaparral, 2K acres total	1 interagency VMP/HR in chaparral with CDF
Acres	3900	1000	2000	250
Acres per year	3915	1000	2250	250
Dollars needed per year	$140,000	$20,000	$213,000	$8,000

Prescribed Fire and Fuels Management Workload Analysis

	Number and size of Projects	Annual Average Workload
1a.	Number of prescribed fire Projects:	11
1b.	Number of acres:	7,275
1c.	Number of Mechanical Treatment Projects:	6
1d.	Number of acres:	140

		#2823-01 WMs	#2810 WMs
2.	Staffing (Fuels Planners)		
2a	Number of PFT positions: 2 (018, 019)	20	
2b.	Additional WMs for Existing WAE: (016, 017)		6
2c.	Total 2823 WM cost (not including implementation): (WMs x AWMC of $5,000)	$100,000	
	Total 2810 WM cost additional for non-PFT positions:		$17,076
3.	Training (10 classes @$1000 each):	$10,000	
4.	Equipment one time cost: Refurbish Terra Torch.		$2,000
5.	Implementation		
	Average annual implementation cost for prescribed fire projects:	$260,000	
5b.	Average annual implementation cost for mechanical fuel treatment projects:	$130,000	
6.	Total items 2c, 3, 5a, and 5b.	$500,000	
6a.	Administrative cost, 5%:	$ 25,000	
6b.	Total 2823 cost:	$525,000	
7.	Sum items 2c, and 4 **Total 2810**:		$ 19,076

VI. Aviation Program

.VE YEAR AVERAGE OF FIRE AVIATION USE

FIRE AVG FLIGHT HRS.	0-59 Hrs.	50-100	100-200	200-350	>350	TOTAL
Rating Value	0	1	2	3	**4**	**4**

FIVE YEAR AVERAGE OF OTHER AVIATION (WH&B, L.E., WILDLIFE, etc.)

RESOURCE AVG YEAR	0-25	25-50	50-100	100-200	>200	TOTAL
Rating Value	0	**1**	2	3	4	**1**

MIX OF AIRCRAFT ASSIGNED TO THE UNIT

# OF CONTRACT AIRCRAFT	1 airplane	air tanker or helicopter of SEAT	Combination of two or more air tanker, SEAT, or helicopter	TOTAL
Rating Value	3	5	**7**	**7**

WORK ANALYSIS

OTAL SCORE	1-6	7-11	12	POINT TOTAL
POSITION	Collateral FMO	Collateral Other (Log Coord, HEMG)	Consider and Aviation Manager	**12**

For CCR, non IIAA aviation duties will be accomplished as collateral duties.

The following information was derived using the FIRES program to summarize the aggregated fire occurrence on the Central California Region. An analysis of decision points derived from the FIRES program using weather for the same period shows that this occurrence has the highest probability for BI's in the range of 36 - 71. In this range, the probability of occurrence are outlined below. The probability of having a fire day when BI's range between 36 and 71 is 73% with an occurrence of 47% of all days modeled.

"Years: '87 to '96"

use"	"Number"	"Percent"	
1	339	29	Lightning
2	123	11	Equipment
3	63	5	Smoking
4	82	7	Campfire
5	128	11	Debris
6	162	14	Railroad
7	57	5	Arson
8	50	4	Children
9	160	14	Miscellaneous
Totals: 1164		100	

Standard size class breakdown:

Large fire occurrence (greater than 100 acres) has a probability of 73% with BI's of 36 -71.

"Size"	"Number"	"Percent"
A	366	31
B	326	28
C	173	15
D	90	8
E	88	8
	90	8
	31	3
Totals	1164	100

Demonstrates that peak occurrence is during the month of July:

Month	Number	Percent
Jan	12	1
Feb	6	1
Mar	18	2
Apr	25	2
May	140	12
Jun	208	18
Jul	305	26
Aug	259	22
Sep	139	12
Oct	39	3
Nov	10	1
Dec	3	0
Totals:	1164	100

Description of the multiple fire occurrence where Fires/Fire Day represents the number of fires in one day and the number of days on occurrence, i.e. multiple occurrence of 3 fires in one day occurred 43

times during the period.

ɔbability of Occurrence with BI of 36 - 71 is 67% for 2 fires/day.

"Fires/Fire Day	"Number"	"Percent"
1	415	62
2	156	23
3	43	6
4	31	5
5	9	1
6	10	1
7	1	0
8	1	0
9	0	0
10+	4	1
Totals:	670	100

"Year"	# Fires"	"Total Acres"
87	98	42033
88	75	60819
89	73	13351
90	40	11333
91	75	634
	122	48525
	145	49873
94	119	94219
95	123	36827
96	294	540146[1]
Totals:	1164	897760

[1]There were some reporting errors that are being fixed.

VII. National Resources

ıtional resources hosted on the Central California Region include a type 1 crew, the Kern Valley Hot Shots, and a type 1 air tanker in Porterville.

Kern Valley Hot Shots are based in Bakersfield at the Field Office. Their activation period is for a minimum of 150 days as set by the California State Office. Full cost for the module is $ 256,869. This includes: $233,584 labor and $23,285 non labor. (Target year 2000 $)

The 20 person crew has 1 GS9 PFT, 1 GS7 Career Seasonal, 3 GS6 Career Seasonals, and 15 seasonals (4 GS5, 4 GS4, 5 GS3, 2 GS2).

Non Labor operation costs are broken down into:

$11,600	F.O.R.
5,300	Procurement
5,300	Training
1,085	Travel

CCR MEL Discussion

determining the most efficient level of operation for the Central California Region Fire Management Program, fifty-five total combinations of preparedness forces, various types of resources and dispatch locations were modeled. Using the Interagency Initial Attack Analysis program, we began from a base organization that represented the current '98 program. Program options were developed to reflect a variety of alternatives, and analyze the potential impact each would comparatively have within the framework of the model. Documented NFMAS philosophy was used to represent cooperator productivity with less than fully staffed modules, and availability where necessary in the design of each program option.

Option design followed two phases. The first phase sought to build from the current option labeled R98. Both plus and minus options were designed. This approach helped identify areas of efficiency, however, some options were not considered for practical considerations. For example, an option which dismantled the preparedness force leaves only cooperators. This option was merely to analyze the lower limits of the model, and could not truly represent such an organization. The plausible options were analyzed to identify the efficient options, one of which was determined to be the program P11 which represented the current base with the addition of a light engine. Phase two used suppression tables to analyze where the efficiency of this option was focused, and additional options were designed to attain these efficiencies. Professional rational was used in the final analysis of option design.

tions P19 and P21 were considered to be converging on the least cost program. The true LCL is Option P21, which replaces the type 2 helicopter with a type 3, and therefore represents a two percent budget decrease over option P19. However, the overall cost difference was less than a half of a percent. In consultation with the state office, it was decided option P21 would burden both interagency cooperation, and mutual representation. Option P19 was considered our acceptable least cost level of operation as approved by the SFMO.

Determination of the most efficient level (MEL) of operation was made by comparing expected occurrence and acreage with the identified Phase I management objectives. This was accomplished using the IIAA Management Objectives routine. This routine compares the efficiency of the selected option(s) to the management criteria.

Finally, several alternatives which sought to analyze various budget levels were developed. For each of the budget levels of plus/minus ten, minus twenty, and minus thirty percent of MEL, the most efficient of these was determined.

A. Most Efficient Level

The alternative identified as MEL represents an approximate 2% increase in the current program for the target year. Following the process described above, this option was developed with the introduction of a new base location, and the addition of one light engine. This option would therefore

include the appropriate one time cost estimates for these increases. The investment suggests an approximate return of 7% in C+NVC, and a reduction in acreage of 13% over the current option budget modeled.

In developing this option, it was decided to model a new station in FMZ 4. The decision was based on recent inspections of the deteriorating infrastructure at both the Conway and Benton fire station. Renovation of the existing sites, or develop a new site at a location to be determined near Polline road and Hwy 395 were the two options were considered realistic . The net construction savings of this latter option was estimated at $400K. Additional savings would come from combining utilities and maintenance. The new station would house the equipment currently located at the two fire stations, however, the model identified an efficient move of the light engine from this Poleline location to the Bishop location.

Finally, an additional light engine was determined most efficient when located at the current interagency work center at the Kernville site in FMZ 5. Both FMZ 5 and FMZ 1 have historically been subjected to large acre, wind driven fires in the light fuels. Although the additional engine was effective in FMZ 1, it was determined that the Kernville site represented a more effective use of this investment.

The support organization for this option is, as with all of the options identified, fell well within the national guidelines. There were no significant changes from the current management structure at this time. The option identifies an estimate of the fire use and fuels management program, as well as the current prevention program. The cost savings from these programs were not identified with this option, however, we intend to report the potential cost savings from an increased prevention structure as described in the prevention narrative using PWA2.

B. Budget Alternatives

Four alternatives were developed in addition to the preferred. The following alternatives evaluate possible budget levels and the plus/minus ten, minus twenty, and minus thirty percent. For each of these alternatives, the most efficient level was determined.

Alternative #1 sought an increase in budget of approximately ten percent above MEL. It was our view that this could represent budget surplus increases, or additional funding sought during appropriately identified severity periods. At the ten percent level increase the best option was identified to be 13M, and represented a target year budget of $3,237,866 (1 Type 3, 1 WT at Bishop, 1 Type 3 at Topaz, and 1 Light Engine at a new location in FMZ B1-1 MU-Ranch). Suppression costs were lowered by $15,560 with a 304 acre reduction. However, this only represents the modeled savings in initial attack, which during severity periods it would be realistic to expect a higher frequency of extended attack fires.

Alternative #2 sought to identify an efficient level at the minus ten percent budget. This option, M12 was achieved by reducing the light engines at the Poleline, Topaz, Chimney Peak, and Kennedy

Meadows fire stations. The total C + NVC increases by $231,660, and suppression increase of more ›n 20%. Total acreage increased to 24,926 and failed to meet the management objectives. Other .ions run at or near this budget target increased acreage burned to 25,640.

Alternatives #3 and # 4 looked at budget reductions at twenty to thirty percent of MEL. The twenty percent option resulted in a C + NVC increase of 10%, with burned acreage increasing to 33,547. This option, M21 dismantled the heavy engine force leaving only our light engines in place. M20 reduced the helicopter to a type 3, and acreage increased to 36,759. The thirty percent budget made further reductions from the M21 option including the WT at Carrizo, and the Dozer stationed at the Bakersfield Field Office. The best option at this level was M31 which increased the C + NVC approximately 12%, with burned acreage increasing by 17,644.

C. Summary of Preferred and Budget Alternatives

The most efficient level of preparedness is Option P19 (MEL), which is predicted at the plus 2% level from the current program. This option increases the current target budget by $60,379 to achieve a reduction of $382,589 in C + NVC, or a 7% reduction. Below is a breakdown of alternatives targeted at the minus 10%, 20%, 30%, and the plus 10% of the MEL option.

Current Option Full Funding Target dollars

	Budget	Supp	NVC	C+NVC	Acres
,98	$2,922,097	$971,976	$1,830,183	$5,724,256	24,648

	Option M31	Option M21	Option M12	P19 Option MEL	Option 13M
Reimbursable:					
2830 Labor.....	$	$	$	$	$
2830 OPS.....	$	$	$	$	$
Sub-Total 2830.....	$	$	$	$	$
Hazardous Fuels:					
2823 Labor.....	$177,002	$177,002	$177,002	$177,002	$177,002
2823 OPS.....	$313,904	$313,904	$313,904	$313,904	$313,904
Sub-Total 2823.....	$490,906	$490,906	$490,906	$490,906	$490,906
Preparedness:					
2810 Labor.....	$1,358,547	$1,504,612	$1,622,590	$1,877,375	$2,062,372
2810 OPS.....	$907,952	$943,873	$1,043,103	$1,105,093	$1,175,484
Sub-Total 2810.....	$2,266,499	$2,448,485	$2,665,693	$2,982,468	$3,237,856
Total Budget:	$2,266,499	$2,448,485	$2,665,693	$2,982,468	$3,237,856
Suppression:	1,233,525	1,132,450	1,063,602	863,338	847,778
NVC:	2,377,632	2,246,287	1,844,014	1,495,844	1,482,136
Total Cost + NVC:	$5,877,656	$5,827,222	$5,573,309	$5,341,650	$5,567,770
One Time Costs:	$1,221,682	$1,221,682	$1,221,682	$1,301,219	$1,301,219

Alternatives were compared to the historical achievement of expected fire management objectives for ·eage containment on each fire, Phase I objectives were analyzed and the results follow.

FMZ	RL	Objective 90% of time	HIS	CUR	**MEL P19**	+10%	-10%	-20%	-30%
B1	1	500	67%	72%	**72%**	72%	72%	67%	61%
	2	550	85%	85%	**85%**	85%	72%	67%	61%
B3	1	10	99%	99%	**100%**	100%	93%	94%	94%
B4	1	40	87%	87%	**89%**	89%	87%	87%	87%
	2	25	89%	89%	**89%**	89%	89%	87%	87%
B5	1	40	87%	87%	**87%**	87%	87%	64%	64%
	2	50	64%	64%	**64%**	64%	64%	64%	64%

Summarized from above, the preferred MEL alternative meets resource management objectives as outlined in the Phase I documentation. Although these figures are below the 90% limit, they are within acceptable limits taking into account possible roundoff errors within the model. Acres burned are realistic, and acceptable to resource managers.

Alternatives were compared to the historical achievement of expected fire management objectives for ·eage containment on each fire, Phase I objectives were analyzed and the results follow.

FMZ	RL	Objective 90% of time	HIS	CUR	**MEL P19**	+10%	-10%	-20%	-30%
B1	1	500	67%	72%	**72%**	72%	72%	67%	61%
	2	550	85%	85%	**85%**	85%	72%	67%	61%
B3	1	10	99%	99%	**100%**	100%	93%	94%	94%
B4	1	40	87%	87%	**89%**	89%	87%	87%	87%
	2	25	89%	89%	**89%**	89%	89%	87%	87%
B5	1	40	87%	87%	**87%**	87%	87%	64%	64%
	2	50	64%	64%	**64%**	64%	64%	64%	64%

Summarized from above, the preferred MEL alternative meets resource management objectives as outlined in the Phase I documentation. Although these figures are below the 90% limit, they are within acceptable limits taking into account possible roundoff errors within the model. Acres burned are realistic, and acceptable to resource managers.

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*  Welcome to AIX Version 4.2!                                                 *
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   Please see the README file in /usr/lpp/bos for information pertinent to    *
*  this release of the AIX Operating System.                                   *
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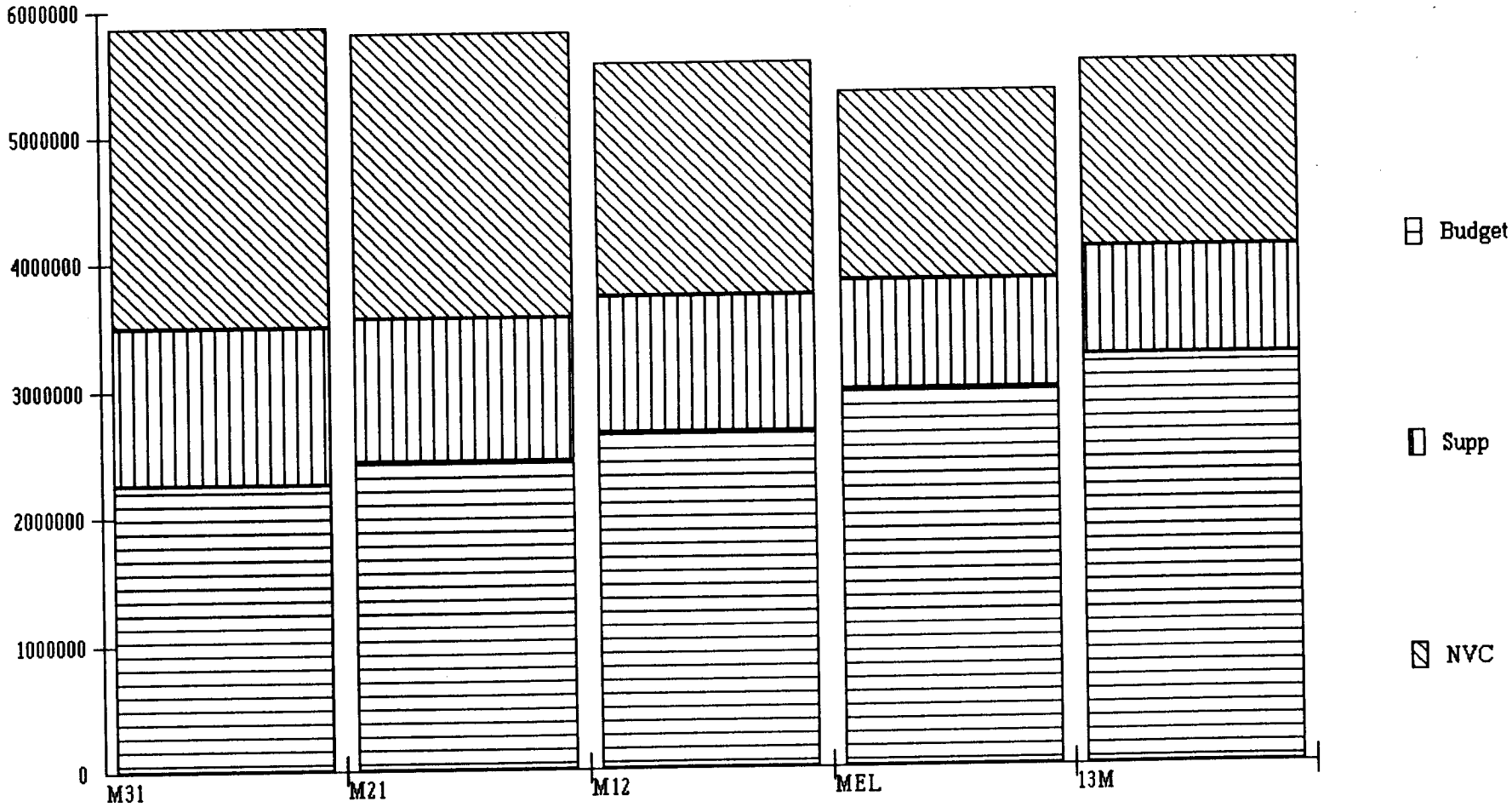
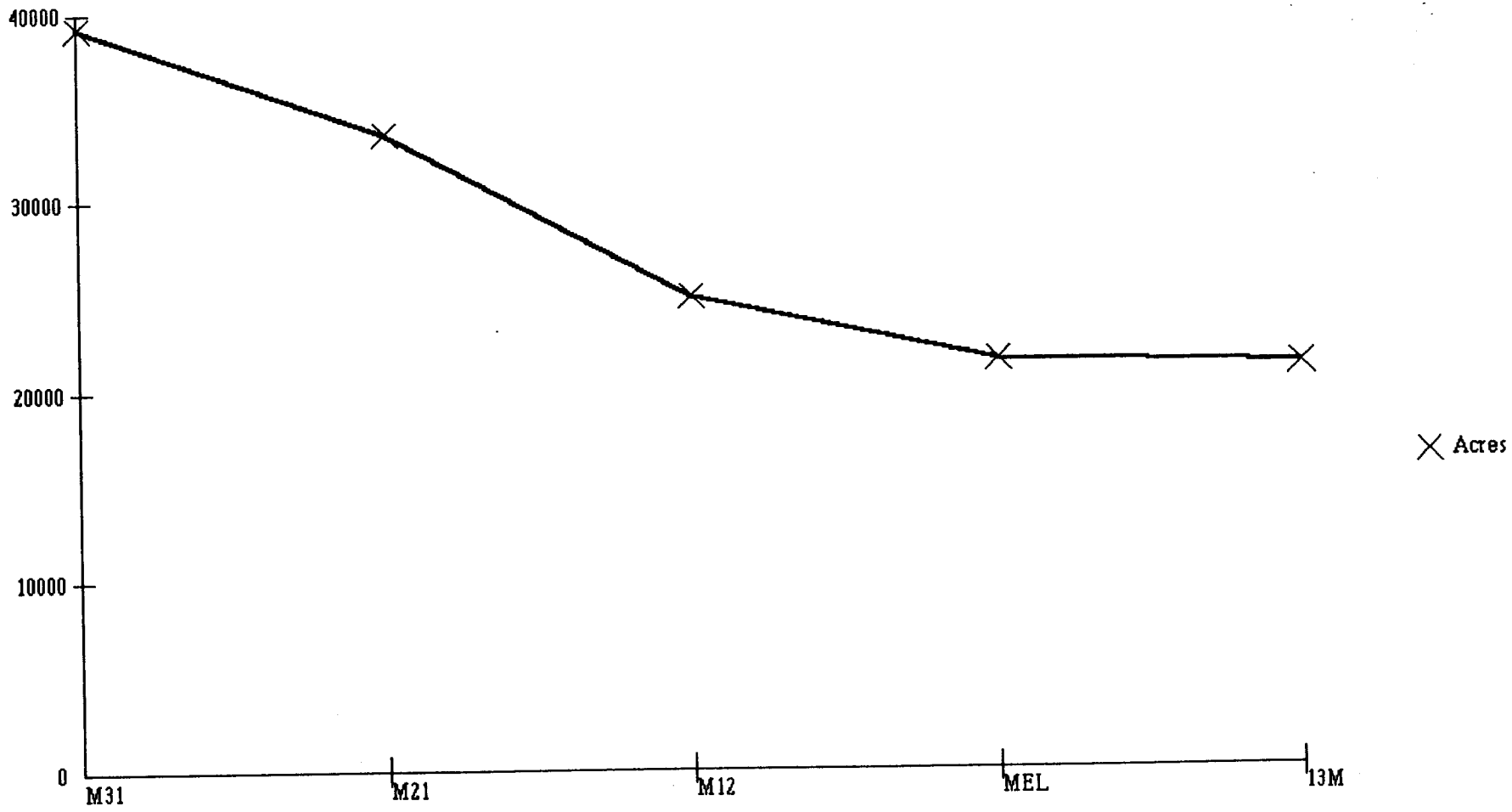
Cost + NVC



BAKERSFIELD DISTRICT BLM (FBD: CAL)

Acres Burned



BAKERSFIELD DISTRICT BLM (FBD: CAL)

FMP Table 1
Fire Use and Fuels Management Summary

CABBD BAKERSFIELD DISTRICT BLM, Option: MEL

re Use / Fuels	Projects	Acres	Labor	Training	Operations	Total Cost
Planning			$18,109	$	$	$18,109
Implementation			$177,002	$3,181	$310,723	$490,906
Report Total			$195,111	$3,181	$310,723	$509,015

FMP Table 2
Line Items Detail

CABBD BAKERSFIELD DISTRICT BLM, Option: MEL

t Item	2810 Labor	2823 Labor	2830 Labor	2810 Ops	2823 Ops	2830 Ops	Total Cost	Start	Stop
.PORT.....	27,199			21,210			$48,409	4/11	9/17
C1CABBD01.....	241,080			23,285			$264,365	4/11	9/17
D1CABBD3180.....	36,568			57,132			$93,700	4/11	9/17
D2CABBD3182.....	36,568			57,132			$93,700	4/11	9/17
DFMO.....	58,650			14,847			$73,497	10/1	9/30
DISPCSLT016.....	14,918						$14,918	4/1	9/30
DISPPFT016.....	33,588						$33,588	2/1	9/30
DISPPFT017.....	33,064						$33,064	10/1	9/30
DISPS016.....	16,951						$16,951	5/15	9/30
DISPS017.....	8,475						$8,475	5/15	9/30
E3CABBD3130.....	71,311			15,796			$87,107	4/11	9/17
E3CABBD3131B.....	82,187			18,447			$100,634	4/11	9/17
E3CABBD3132B.....	82,187			18,447			$100,634	4/11	9/17
E3CABBD3133.....	82,187			21,299			$103,486	4/11	9/17
E3CABBD3134.....	82,187			21,299			$103,486	4/11	9/17
E6CABBD3140A.....	47,981			12,398			$60,379	4/11	9/17
E6CABBD3141.....	47,981			12,398			$60,379	4/11	9/17
E6CABBD3143.....	47,981			12,398			$60,379	4/11	9/17
E6CABBD3144.....	47,981			12,398			$60,379	4/11	9/17
E6CABBD3145.....	47,981			12,398			$60,379	4/11	9/17
E6CABBD3146.....	47,981			12,398			$60,379	4/11	9/17
E6CABBD3147.....	47,981			12,398			$60,379	4/11	9/17
EQPMGR.....	21,233						$21,233	4/1	9/30
FCO.....	48,945			4,242			$53,187	10/1	9/30
FIREADMN.....	56,295	12,711		194,631	10,605		$274,242		
FIXED.....				144,226			$144,226		
FMO16.....	48,945			4,242			$53,187	10/1	9/30
FMO17.....	48,945			4,242			$53,187	10/1	9/30
FORSUPPORT.....				61,572			$61,572		
FUELSPREP.....	18,109	164,291			303,299		$485,699		
HRCABBD556.....	136,605			254,516			$391,121	4/11	9/17
K[illegible]EFUGE.....	14,880						$14,880	4/11	9/17
.....	8,475						$8,475	5/1	9/30
I.....	21,233						$21,233	4/1	9/30
TATION.....							$		
OTCENGINE.....							$		
OVFMO.....	21,210						$21,210		
PORTERVILLE.....	3,181						$3,181	4/11	9/17
PREV01.....	58,887			12,725			$71,612	1/15	9/30
RADIO.....	29,233						$29,233		
W2CABBD3191.....	26,773			30,645			$57,418	4/11	9/17
W2CABBD3192B.....	26,773			30,645			$57,418	4/11	9/17
W3CABBD3190.....	26,773			7,727			$34,500	4/11	9/17
WAREMGR016.....	17,650						$17,650	4/1	9/30
WAREMGR017.....	17,650						$17,650	4/1	9/30
Report Total	1,894,782	177,002		1,105,093	313,904		$3,490,781		

FMP Table 3
Cost + NVC Summary

CABBD BAKERSFIELD DISTRICT BLM

	Option M31	Option M21	Option M12	Option MEL	Option 13M
eimbursable:					
830 Labor.....	$	$	$	$	$
2830 OPS.....	$	$	$	$	$
Sub-Total 2830.....	$	$	$	$	$
Hazardous Fuels:					
2823 Labor.....	$177,002	$177,002	$177,002	$177,002	$177,002
2823 OPS.....	$313,904	$313,904	$313,904	$313,904	$313,904
Sub-Total 2823.....	$490,906	$490,906	$490,906	$490,906	$490,906
Preparedness:					
2810 Labor.....	$1,375,954	$1,522,019	$1,639,997	$1,894,782	$2,079,779
2810 OPS.....	$907,952	$943,873	$1,043,103	$1,105,093	$1,175,484
Sub-Total 2810.....	$2,283,906	$2,465,892	$2,683,100	$2,999,875	$3,255,263
Total Budget:	$2,283,906	$2,465,892	$2,683,100	$2,999,875	$3,255,263
Suppression:	1,233,525	1,132,450	1,063,602	863,338	847,778
NVC:	2,377,632	2,246,287	1,844,014	1,495,844	1,482,136
Total Cost + NVC:	$5,895,063	$5,844,629	$5,590,716	$5,359,057	$5,585,177
One Time Costs:	$1,221,682	$1,221,682	$1,221,682	$1,301,219	$1,301,219

FMP Table 4 (Page 1)
Fire Force Location Summary

CA BBD: BAKERSFIELD DISTRICT BLM, Option: MEL

oment Type	ALL	BAKO	BALDMTN	BBDFO	BISHOP	BRIDGEPORT
IPMENT:						
(T4)	5	1				
Engine (T6)	7				1	
Crew (T1)	1	1				
Water Tender (T2)	2					
Water Tender (T3)	1	1				
Dozer	2	1				
AIRCRAFT:						
Helicopter (T2)	1					
SUPPORT EQUIPMENT:						
Support Vehicle	15					
PERSONNEL COUNT:						
CSLT Career Seas	38	8			2	1
PFT Perm Full-Tim	23	4				
TEMP Temporary	70	20	1		2	2

FMP Table 4 (Page 2)
Fire Force Location Summary

CA BBD: BAKERSFIELD DISTRICT BLM, Option: MEL

oment Type	ALL	CARRIZO	CHIMNEY	FIRESUP	KDYMDWS	KEENE
IPMENT:						
E (T4)	5	1				
Engine (T6)	7	1	1		1	
Crew (T1)	1					
Water Tender (T2)	2	1				
Water Tender (T3)	1					
Dozer	2					
AIRCRAFT:						
Helicopter (T2)	1					1
SUPPORT EQUIPMENT:						
Support Vehicle	15					
PERSONNEL COUNT:						
CSLT Career Seas	38	5	2	1	2	2
PFT Perm Full-Tim	23	1		14		1
TEMP Temporary	70	8	2	3	2	7

FMP Table 4 (Page 3)
Fire Force Location Summary

CA BBD: BAKERSFIELD DISTRICT BLM, Option: MEL

pment Type	ALL	KERNVILLE	KRNREFUGE	POLLINE	PORTVILLE	SOUTHFORK
IPMENT:						
E (T4)	5			2		1
Engine (T6)	7	1				1
Crew (T1)	1					
Water Tender (T2)	2	1				
Water Tender (T3)	1					
Dozer	2	1				
AIRCRAFT:						
Helicopter (T2)	1					
SUPPORT EQUIPMENT:						
Support Vehicle	15					
PERSONNEL COUNT:						
CSLT Career Seas	38	2		6		5
PFT Perm Full-Tim	23	3				
TEMP Temporary	70	5	2	8		6

FMP Table 4 (Page 4)
Fire Force Location Summary

CA BBD: BAKERSFIELD DISTRICT BLM, Option: MEL

pment Type	ALL	TOPAZ	(N/A)			
IPMENT:						
l (T4)	5					
Engine (T6)	7	1				
Crew (T1)	1					
Water Tender (T2)	2					
Water Tender (T3)	1					
Dozer	2					
AIRCRAFT:						
Helicopter (T2)	1					
SUPPORT EQUIPMENT:						
Support Vehicle	15		15			
PERSONNEL COUNT:						
CSLT Career Seas	38	2				
PFT Perm Full-Tim	23					
TEMP Temporary	70	2				

FMP Table 5
Dollar Summary

CABBD BAKERSFIELD DISTRICT BLM, Option: MEL

Act: 2810	Program Managmt	Fire Use and Fuels	Administ Support	Preventn	Init Atk/ Supprsn	Total Dollars
Personnel.....	378,954	18,109	56,295	58,887	1,382,537	$1,894,782
Equipment.....						$
Procurement....	154,831		194,631	5,302	21,734	$376,498
Contract.....	21,210				239,670	$260,880
F.O.R.....				4,242	386,857	$391,099
Travel.....	14,848			2,651	11,925	$29,424
Training.....	2,120			530	44,542	$47,192
Aviation.....						$
Total	571,963	18,109	250,926	71,612	2,087,265	$2,999,875

Sub-Act: 2823	Program Managmt	Fire Use and Fuels	Administ Support	Preventn	Init Atk/ Supprsn	Total Dollars
Personnel.....		164,291	12,711			$177,002
Equipment.....						$
Procurement....		71,053	10,605			$81,658
Contract.....		137,863				$137,863
F.O.R.....		24,391				$24,391
Travel.....		66,811				$66,811
Training.....		3,181				$3,181
Aviation.....						$
Total		467,590	23,316			$490,906

Sub-Act: 2830	Program Managmt	Fire Use and Fuels	Administ Support	Preventn	Init Atk/ Supprsn	Total Dollars
Personnel.....						$
Equipment.....						$
Procurement....						$
Contract.....						$
F.O.R.....						$
Travel.....						$
Training.....						$
Aviation.....						$
Total						$

Sub-Act: 2810OT	Program Managmt	Fire Use and Fuels	Administ Support	Preventn	Init Atk/ Supprsn	Total Dollars
Personnel.....						$
Equipment.....					79,537	$79,537
Procurement....	1,219,561	2,121				$1,221,682
Contract.....						$
F.O.R.....						$
Travel.....						$
Training.....						$
Aviation.....						$
Total	1,219,561	2,121			79,537	$1,301,219

Sub-Act: ALL	Program Managmt	Fire Use and Fuels	Administ Support	Preventn	Init Atk/ Supprsn	Total Dollars
Personnel.....	378,954	182,400	69,006	58,887	1,382,537	$2,071,784
Equipment.....					79,537	$79,537
Procurement....	1,374,392	73,174	205,236	5,302	21,734	$1,679,838
Contract.....	21,210	137,863			239,670	$398,743
F.O.R.....		24,391		4,242	386,857	$415,490
Travel.....	14,848	66,811		2,651	11,925	$96,235
Training.....	2,120	3,181		530	44,542	$50,373
Aviation.....						$
Total	1,791,524	487,820	274,242	71,612	2,166,802	$4,792,000

FMP Table 6A
Budget Guidance Formula
Detail Listing

CA BBD: BAKERSFIELD DISTRICT BLM, Option: MEL

Item ID	Description	Productn	Suppt Org	Ops	Prv/Fuels	Admin
PORT	Bridgeport Interagency		48,409			
ClCABD01	KERN VALLEY HS	264,365				
D1CABBD3180	D7 DOZER-BAKO	93,700				
D2CABBD3182	D6 DOZER-Kernville	93,700				
DFMO	District FMO		73,497			
DISPCSLT016	Bakersfield CSLT Dispat		14,918			
DISPPFT016	Bakersfield PFT Dispatc		33,588			
DISPPFT017	OVICC PFT Dispatch		33,064			
DISPS016	Bakersfield Seasonal Di		16,951			
DISPS017	OVICC Seasonal Dispatch		8,475			
E3CABBD3130	CAFTS-Bakersfield	87,107				
E3CABBD3131B	Model 5-Polline	100,634				
E3CABBD3132B	Model 5-Polline	100,634				
E3CABBD3133	Model 14-South Fork	103,486				
E3CABBD3134	Model 14-Carrizo	103,486				
E6CABBD3140A	Light Engine-Bishop	60,379				
E6CABBD3141	Light Engine-Topaz	60,379				
E6CABBD3143	Light Engine-Kernville	60,379				
E6CABBD3144	Light Engine-Chimney Pe	60,379				
E6CABBD3145	Light Engine-Kndy Mdws	60,379				
E6CABBD3146	Light Engine-South Fork	60,379				
E6CABBD3147	Light Engine-Carrizo	60,379				
EQPMGR	Equipment Manager		21,233			
FCO	Fire Control Officer		53,187			
FIREADMN	Fire Administration					250,926
FIXED	Fixed and Utilities			144,226		
FMO16	Caliente FMO		53,187			
FMO17	Bishop FMO		53,187			
FORSUPPORT	Support Vehicles FOR			61,572		
FUELSPREP	Fuels Program				18,109	
HRCABBD556	Keene Rappel	391,121				
KERNREFUGE	Kern Refuge		14,880			
	Lookout Bald Mtn		8,475			
	Equipment Mechanic		21,233			
	OV FMO		21,210			
PORTERVILLE	Porterville Air Tanker		3,181			
PREV01	District Prevention				71,612	
RADIO	Radio Technicians		29,233			
W2CABBD3191	Water Tender-Kernville	57,418				
W2CABBD3192B	Water Tender-Carrizo	57,418				
W3CABBD3190	Water Tender-Bakersfiel	34,500				
WAREMGR016	Warehouse Manager		17,650			
WAREMGR017	Warehouse Manager		17,650			
		1,910,222	543,208	205,798	89,721	250,926

FMP Table 6
Budget Guidance Formula

CA BBD: BAKERSFIELD DISTRICT BLM, Option: MEL

BBD complexity level: HIGH

	Productn	Suppt Org	Ops	Prv/Fuels	Admin
Budget:	1,910,222	543,208	205,798	89,721	250,926
Allowable Percent:		40%	30%	10%	10%
Actual Percent:		28%	8%	3%	9%

Program Option MEL, FBD CAL

FMZ	RL	% Obj	Below Acres	Actual %	OK?	Fires Below	Total Fires
B1	1	90	500	72.24	NO	1.07	1.48
B1	2	90	550	85.37	NO	19.74	23.12
B3	1	90	10	99.74	YES	7.68	7.70
B4	1	90	40	88.53	NO	4.91	5.54
B4	2	90	25	88.53	NO	17.40	19.66
B5	1	90	40	86.97	NO	13.93	16.02
B5	2	90	50	64.04	NO	1.14	1.78

Program Option 13M, FBD CAL

FMZ	RL	% Obj	Below Acres	Actual %	OK?	Fires Below	Total Fires
B1	1	90	500	72.24	NO	1.07	1.48
B1	2	90	550	85.37	NO	19.74	23.12
B3	1	90	10	99.74	YES	7.68	7.70
B4	1	90	40	88.53	NO	4.91	5.54
B4	2	90	25	88.53	NO	17.40	19.66
B5	1	90	40	86.97	NO	13.93	16.02
B5	2	90	50	64.04	NO	1.14	1.78

Program Option M12, FBD CAL

FMZ	RL	% Obj	Below Acres	Actual %	OK?	Fires Below	Total Fires
B1	1	90	500	72.24	NO	1.07	1.48
B1	2	90	550	72.24	NO	16.70	23.12
B3	1	90	10	93.77	YES	7.22	7.70
B4	1	90	40	86.98	NO	4.82	5.54
B4	2	90	25	88.53	NO	17.40	19.66
B5	1	90	40	86.97	NO	13.93	16.02
B5	2	90	50	64.04	NO	1.14	1.78

Program Option M21, FBD CAL

FMZ	RL	% Obj	Below Acres	Actual %	OK?	Fires Below	Total Fires
B1	1	90	500	67.30	NO	.99	1.48
B1	2	90	550	67.30	NO	15.56	23.12
B3	1	90	10	94.29	YES	7.26	7.70
B4	1	90	40	86.98	NO	4.82	5.54
B4	2	90	25	86.98	NO	17.10	19.66
B5	1	90	40	64.04	NO	10.26	16.02
B5	2	90	50	64.04	NO	1.14	1.78

Program Option M31, FBD CAL

FMZ	RL	% Obj	Below Acres	Actual %	OK?	Fires Below	Total Fires
B1	1	90	500	61.37	NO	.91	1.48
B1	2	90	550	61.37	NO	14.19	23.12
B3	1	90	10	94.29	YES	7.26	7.70
B4	1	90	40	86.98	NO	4.82	5.54
B4	2	90	25	86.98	NO	17.10	19.66
B5	1	90	40	64.04	NO	10.26	16.02
B5	2	90	50	64.04	NO	1.14	1.78

Phase one Fire Planning

Steps III Fire Management Strategies and Step IV Fire Management Objectives for each FMZ-RL

Fire Management Zone B1 - Valley Grassland 334,037 acres

AVERAGE ANNUAL FIRE HISTORY DATA BY SIZE CLASS 1987 - 1996

SIZE CLASS	A	B	C	D	E	F	TOTAL
No. of Fires	3.5	6.7	4.8	2.7	3.3	3.6	24.6
No. of Acres	.46	18.26	167.8	434.7	1,752.2	13,070.5	15,443.94

FMZ B1-1 Carrizo Plain Natural Area: 199,030 acres

Step III. Preliminary Fire Management Strategies

Narrative for Step III. FMZ B1-1 Carrizo Plain Natural Area: Manage wildland fires (unplanned ignitions) using the most appropriate fire management response with regard for cost, safety, and risk to ranches. When selecting the most appropriate fire management response, consider the need to protect burrowing animals and shrub communities. However, protection of annual grasslands, only, is not necessary, backing off to nearest road to backfire is preferred.
Use management ignitions to conduct spring burns, reducing annual potential regrowth and encourage perennial grass restoration and diversity of native herbaceous plants.

Use management ignitions to conduct hazard reduction burns to help protect structures, private land, improvements, and desired shrub communities.

Use management ignitions to improve wildlife habitat through thatch reduction. Continue research on fire effects to natural area. Curtail management ignition program if goals are met with unplanned ignitions.

Prevent fire from spreading into private ranches and Los Padres National Forest polygon to west, urban interface to the north in California Valley, and intermix of private and public lands to the northeast and east. We are not as concerned about fire spread to the south side of the Calientes where vegetation is sparse and is dominated by a WSA. This area, east of Caliente Mountain Road does not warrant aggressive suppression techniques.

Step IV. Proposed Fire Management Direction

Narrative for Step IV. FMZ B1-1 Carrizo Plain Natural Area:

Shrub communities

- Confine or contain each unplanned ignition to less than 10 acres at least 90 percent of the time in the salt bush communities.

- Use mechanical treatments to make lines and use planned ignitions to reduce hazard adjacent to shrub areas. Prescribed fire activities will be curtailed if grassland decadal burned target is reached through unplanned ignitions.

Grasslands

- Confine or contain each unplanned ignition to less than 500 acres at least 90 percent of the time in annual grass fields.

- Desired burned acreage in grass is 7,000 to 10,000 acres per decade, under any fire intensity level.

- Treat 10,000 acres with prescribed fire in annual grass communities to restore native herbaceous vegetation and perennial grass. Utilize hazard reduction burns adjacent to shrub fields in high visitor use areas to prevent unplanned ignitions.

Constraints

- Limit surface disturbance where no threat to safety or structures. Stay on roads or along fence lines whenever possible.

- Keep retardant off of rock outcroppings and dry lake beds (alkali sinks).

- Utilize a local environmental specialist for location of sensitive areas. Suppression actions can do irreparable damage to cultural sites.

- For fires in or near the Caliente WSA, the appropriate suppression actions will be those that least impair the land's suitability for preservation as a wilderness. If no threat to life or significant property, it is preferred to back off to the nearest road or ridge outside the boundary to establish control lines.

- Smoke management has not been a problem due to the areas remoteness, minimum elevation of 2,000 feet, and short duration fuels. This does not mean to ignore the San Luis Obispo County APCD. Work with them on all burn projects and burn only on designated burn days.

Intermix

- Utilize aggressive suppression techniques to protect all privately owned improvements.

- Fire prevention efforts should include maintaining appropriate signs, patrol on heavy use days, campground hazard reduction, and public awareness programs at visitor center. These programs will include appropriate fire prevention message for the time of year and prescribed burn use awareness.

FMZ B1-2 Valley Custodial: 135,007 acres

Step III. Preliminary Fire Management Strategies

Narrative for Step III. FMZ B1-2 Valley Custodial: Fires burning on or near oil field production and transmission facilities, endangered species habitat, agriculture and grazing operations and urban-wildland intermix areas must be suppressed at the smallest acreage possible. Fires that originate on BLM land must be immediately suppressed in order to prevent fire spread onto intermingled or adjacent private lands. Fires that may impact water projects must be suppressed at minimal acreage. The tradeoffs between the cost of suppression and the losses or damage potential listed above should be considered in all escaped suppression actions. In most cases the cost of suppression to achieve minimal acreage may be the best strategy economically, environmentally and politically.

Use management ignitions to:
- conduct spring burns, reducing annual potential regrowth and encourage perennial grass restoration and diversity of native herbaceous plants.
- improve wildlife habitat through thatch reduction.
- conduct hazard reduction burns to help protect structures, private land, improvements, and desired shrub communities.

Step IV. Proposed Fire Management Direction

Narrative for Step IV. FMZ B1-2 Valley Custodial:
Due to intermix of land ownership, aggressive fire suppression tactics generally are needed to prevent fires from burning adjacent owners property. Use cost effective strategy, balancing suppression costs with values at risk. When possible, protect the saltbush communities with direct attack and back off in grasslands using indirect tactics to prevent unneeded off road vehicle travel. Size of fire in itself is not a determining factor to strategy selection.

Shrub communities

- Confine or contain each unplanned ignition to less than 10 acres at least 90 percent of the time in the salt bush communities.

- Use mechanical treatments to make lines and use planned ignitions to reduce hazard adjacent to sensitive areas. Prescribed fire activities will be curtailed if decadal burned target of 3000 acres is reached through unplanned ignitions.

Grasslands

- Confine or contain each unplanned ignition to less than 550 acres at least 90 percent of the time in annual grass fields near developments.

- Desired burned acreage in grass is 10,000 to 34,000 acres per decade, under any fire intensity level.

- Treat 34,000 acres with prescribed fire in annual grass communities to restore native herbaceous vegetation and perennial grass. Utilize hazard reduction burns adjacent to shrub fields in high visitor use areas to prevent unplanned ignitions.

Constraints

- Limit surface disturbance where no threat to safety or structures. Stay on roads or along fence lines whenever possible.

- Keep dozers away from Chico Martinez and Kettleman Hills ACEC. Suppression actions can do irreparable damage to archeological sites.

- Smoke management is a problem due to the non attainment rating of the San Joaquin Air Basin to EPA air quality standards. Work closely with San Joaquin Valley Air Pollution Control District.

Intermix

- Utilize aggressive suppression techniques to protect all privately owned improvements.

- Fire prevention efforts in this scattered agriculture and industrial area should include maintaining appropriate signs, and apply appropriate industrial hazard reduction measures.

Fire Management Zone 2 - Chaparral 52,927 acres

FMZ B2-1 Coastal: 30,142 acres

Step III. Preliminary Fire Management Strategies

Narrative for Step III. FMZ B2-1 Coastal:
The fire management objective for this zone is to suppress all fires at the minimal acreage and least cost. The constraints of intermingled lands, the structure protection requirement and the politics of the CDF agreement set any allowable burn acreage. All fires regardless of intensity, season or location will receive an aggressive initial attack by CDF. Suppression constraints like the use of dozers in WSA, wilderness or culturally sensitive areas is addressed with site specific protection guidelines and suppression standards between BLM and CDF. Any time a variance is needed from full suppression action, a modified suppression plan is drafted and signed by both the Field Office Manager and the CDF Ranger Unit Chief. Along with a map this is include in the operating plan. Annual Operating Plan meetings for the Central Coast Group are held to discuss the agreement, share changes in available firefighting resources, and include any new modified suppression plans if needed. This area has two plans, one each for the Garcia Mountain WSA, and Machesna Mountain WSA.

The State Director has mandated that BLM will work cooperatively with CDF in the fire safe initiative to reduce hazardous fuel accumulations near urban interface through the use of interagency prescribed burns and fuel reduction projects. This chaparral area presents one of the worst potential threats to life and property during wind driven chaparral fires. Plans are to implement existing prescribed fire and fuels management projects, develop and plan additional projects as necessary in coordination with CDF, Fish and Game and the local public. Plan burn projects for late fall, after first rainfall, to early spring, before sprouting, for moderate intensity burns. If desired, summer burns will yield moderate intensity in June to mid July, and high intensity mid July till first substantial rain.

Step IV. Proposed Fire Management Direction

Narrative for Step IV. FMZ B2-1 Coastal:

- Confine and contain each unplanned ignition to less than 10 acres at least 90% of the time.

- Recognizing a desired fire frequency of 50 to 75 years for woodlands, 40 to 60 years for chaparral, and 1 to 5 years for grasslands, desired burned acres per decade is 4,000 to 10,000 acres either wildfire or prescribed burn.

- Cooperate with CDF, Range Improvement Associations, and County Fire Departments, where needed in prescribed burning projects.

- Fire Prevention activities are general actions and usually in cooperation with another agency.

Constraints

- Environmental Specialist should be requested any time fires are in or threatening any of the following ACECs or SMAs: Cypress Mountain ACEC, Salinas River ACEC, Huasna Peak SMA, Santa Lucia Wilderness, Machesna Mountain Wilderness, Tierra Redonda ACEC, and Pt. Sal ACEC.

FMZ B2-2 Sierra: 22,785

Step III. Preliminary Fire Management Strategies

Narrative for Step III. FMZ B2-2 Sierra:
The fire management objective for this zone is to suppress all fires at the minimal acreage and least cost. The constraints of intermingled lands, the structure protection requirement and the politics of the CDF agreement set any allowable burn acreage. All fires regardless of intensity, season or location will receive an aggressive initial attack by CDF. Suppression constraints like the use of dozers in WSA, wilderness or culturally sensitive areas is addressed with site specific protection guidelines and suppression standards between BLM and CDF. Any time a variance is needed from full suppression action, a modified suppression plan is drafted and signed by both the Field Office Manager and the CDF Ranger Unit Chief. Along with a map this is included in the operating plan. Annual Operating Plan meetings for the Central Sierra Group are held to discuss the agreement, share changes in available firefighting resources, and include any new modified suppression plans. This area has two plans, one each for the Milk Ranch/Case Mountain WSA, and Sheep Ridge WSA.

The State Director has mandated that BLM will work cooperatively with CDF in the fire safe initiative to reduce hazardous fuel accumulations near urban interface. This chaparral area presents one of the worst potential threats to life and property during wind driven chaparral fires.
Chaparral burns are multi-beneficial, achieving natural resource objectives for wildlife habitat improvement, watershed protection, native plant diversity improvement, as well as fuels hazard reduction. The burns are planned mostly for the fall season, after first rainfall, to early spring, before sprouting, for moderate intensity burns. If desired, summer burns will yield moderate intensity in June to mid July, and high intensity mid July till first substantial rain.

Step IV. Proposed Fire Management Direction

Narrative for Step IV. FMZ B2-2 Sierra:

- Confine and contain each unplanned ignition to less than 10 acres at least 90% of the time.

- Send agency representatives to fires reaching extended attack or bigger.

- Implement existing prescribed fire and fuels management projects. Develop and plan additional projects as necessary in coordination with CDF, Fish and Game and the local public.

- Target between 1,500 and 9,000 acres prescribe burning per decade.

- Increase public awareness of fire's role in the ecosystem. Keep public involved in fire use and fuels management projects. Work with CDF and NPS to accomplish interagency public awareness programs.

- Utilize Fire Prevention activities to target human fire causes. Actions should include patrolling on heavy use weekends, posting appropriate fire prevention signs, and do fire hazard reduction in camping areas.

Constraints

- Assure CDF uses the Modified Suppression Plans when suppressing fires in the WSAs. Attend annual Operating Plan meetings to update new concerns and reinforce old ones.

Fire Management Zone B3 - Kern Plateau: 120,195 acres

AVERAGE ANNUAL FIRE HISTORY DATA BY SIZE CLASS: 1987 - 1996

SIZE CLASS	A	B	C	D	E	F	TOTAL
No. of Fires	7.0	.6	.1	0	0	0	7.7
No. of Acres	.73	1.07	5.0	0	0	0	6.8

FMZ B3-1 Wilderness: 120,195 acres:

Step III. Preliminary Fire Management Strategies

Narrative for Step III. FMZ B3-1 Wilderness:

First priority suppression needs are to protect private land from wildfires coming off BLM land. Second is to keep fires on private lands from burning onto BLM lands. With these considerations being a non issue and there is a fire on public land, suppression will be based on the appropriate management response. This response will be defined by prescriptive elements when a fire management plan is completed for the area. Until then, each fire will receive full initial attack warranted by the fire danger rating and documented on the run card.

The use of prescribed fire in this zone would be to reduce fuel buildup near houses and electronic sites to allow fire in the future to play its natural role in a wilderness setting. In non wilderness areas, prescribed fire use has been identified for pinyon slash piles left from treating black stain root disease.

Until fire management plans with prescriptions for prescribed fire are developed, Department of the Interior policy requires that all fires in wilderness are deemed to be "wildfires" and will be subject to suppression action. A wildfire in a wilderness is not in itself an emergency that requires aggressive response unless the fire threatens human life, property, safety or critical resource values.

Step IV. Proposed Fire Management Direction

Narrative for Step IV. FMZ B3-1 Wilderness:

Intermix

- Confine and contain each unplanned ignition to less than 10 acres at least 90% of the time.

- Dozers will be utilized on sagebrush flats to protect structures.

- In the Deer Springs SMA, protect cultural sites and maintain springs, through aggressive suppression tactics but avoiding soil disturbance.

- Smoke management has not been a problem due to the areas remoteness, and high elevation.

- Utilize management ignitions to conduct hazard reduction burns in non wilderness areas.

- Utilize management ignitions to accomplish resource objective burns in both wilderness and non wilderness areas.

- Recognizing a desired fire frequency of 130 to 150 years for Pinyon Juniper, desired burned acres per decade is 1,600 to 5,000 acres.

- Recognizing a desired fire frequency of 21 to 50 years for sage brush, desired burned acres per decade is 2,300 to 7,000 acres.

- Utilize Fire Prevention activities to target human fire causes. Actions should include patrolling on heavy use weekends, posting appropriate fire prevention signs, do hazard reduction in camping areas, continue outreach programs with home owner association, and continue residential hazard inspection mailings with follow up inspections.

Wilderness

- When engaged in suppressing wildfires in wilderness, the following Special Suppression Requirements will be incorporated into the fire suppression action *:
  a. Safety of fire-fighting personnel will receive the highest priority;
  b. All suppression actions will be carried out in a manner that least impairs wilderness values, i.e. minimum impact suppression techniques;
  c. Any action necessary to prevent loss of life or real property may be taken, even if the action impairs wilderness values if such action is consistent with the values at risk and the safety of personnel;
  d. All fires in wilderness that are protected by a non-Interior agency will have an Interior Department Agency Representative and Environmental Specialist assigned to the fire to advise the protecting agency of Interior Department laws and policies, including the Wilderness Act;
  e. Heavy equipment (bulldozers/tractors) will not be used in wilderness areas, except to prevent loss of human life or real property, or where specifically authorized by the Agency Administrator (Line Manager - Desert District Manager or Superintendent);

f. All rubber-tired suppression vehicles will be driven on existing residual ways of passage;

g. Engines and portable pumps may be used to support fireline construction through hose lays, where possible;

h. Suppression tactics will attempt to use foam, fire-line explosives, fugitive (uncolored) retardant and other new technologies in lieu of more surface-disturbing suppression tactics;

i. Retardant will not be dropped no closer than 200' from any wetland or riparian area;

j. Where feasible, it will be acceptable to burn out ridges, washes, other natural barriers, and roads to stop the spread of fire and serve as control lines. Firelines may tie into but not proceed through meadows, spring areas, riparian zones or cultural sites;

k. Helicopters and retardant aircraft may be used in initial attack and as reinforcement as deemed necessary by the Incident Commander. Helicopters may be landed on existing heliports, helispots, or unimproved sites in wilderness;

l. Entry into wilderness should be by walking, helicopters on unimproved helispots, rappelling or smokejumping to the greatest extent practicable;

m. Chainsaw use may be pre-approved if necessary to prevent the fire from escaping initial attack or for helispot med-evac purposes;

n. Reclamation requirements will be determined by the Incident Commander and the Agency Representative. Reclamation will be determined during suppression activities while fire forces and equipment are still on incident.

*Developed 11/8/95: ANNEX 5 - PRINCIPLES FOR FIRE MANAGEMENT WITHIN WILDERNESS AREAS OF THE CALIFORNIA DESERT

Fire History in Fire Management Zone B4 - Bishop Field Office (750,050 acres)

AVERAGE ANNUAL FIRE HISTORY DATA BY SIZE CLASS 1987 - 1996

Size Class	A	B	C	D	E	F	TOTAL No.
No. of Fires	18.7	3.5	1.5	0.5	0.4	0.6	25.2
No. of Acres	2.05	5.1	67.0	98.3	298.3	3484	3,954.75

Introduction

This plan was prepared in compliance with the Federal Wildland Fire Policy and Program Review requirements and when tired to the INFORMIX Phase I Fire Management database identifies appropriate fire management guidelines. The primary elements identified in this plan include; management emphasis, desired resource objectives, fire history, fuel type and suppression constraints. Identified objectives meet with the Bishop Resource Area Management Plan (1991) decisions.

Area Designations

Area designations (polygons) were based on Management Areas identified in the Bishop Resource Area Management Plan (1991). GIS was then used to calculate the acreage, topographical indices (slope/exposure and elevation) and resource elements unique to each of the 15 polygons. Two general polygons; B4-1 and B4-2 were then created by Bakersfield fire staff. This plan will only address the general polygons, since the INFORMIX database only contains information on the 15 separate polygons. It should be mentioned here, that since both RL 1 & 2 are made up of many separate units spread throughout the length of the Bishop Resource Area, and involve lands both within Inyo and Mono counties, that there are areas of exchanged initial attack fire responsibility. This was brought about through the balancing of acres agreement. In Mono county all SRA lands within the boundary of the BLM lands are the initial attack fire responsibility of the Bishop fire program. In the lower Owens Valley, from the Owens Gorge on the West across Chalk Bluff road to the Inyo National Forest boundary on the East side of the Owens valley and down to town of Olancha, the CDF has initial attack fire responsibility on all BLM lands on the valley floor.

Step III. Preliminary Fire Management Strategies

Narrative for Step III. FMZ-B 4, RL 1: The ten units that comprise Polygon B4-1, though they are geographically disjunct from one another were grouped together because of factors governing the level of suppression required for each area. The protection standard for this zone is to keep all fires to 10 acres or less ninety percent of the time. All the units represent areas where an aggressive and high level of suppression activity are required to maintain

minimal acreage loss. The resource concerns that govern this level of suppression are numerous, and all units have one or more of the following elements within it's boundaries; recreation, visual, wilderness, wildlife habitat (DPC's), cultural, both sensitive and T&E species of plants and animals and improvements on and adjacent to BLM lands. Some of the ten units have very precise and small acreage loss requirements, but there are also management areas and other specific sites where prescribed fire can be introduced. In these areas, a more liberal approach to acreage limits could be imposed with the objective of a least cost, least damage suppression strategy. Within the land mass represented by FMZ-B 4, RL 1 are a number of areas which the, BLM prevention plan evaluation, has identified as "High-Risk, High-Hazard and High-Value". Specifically the compartments of Topaz and Bodie. The Topaz compartment represents an area of intense urban intermix and urban interface, and a recent history of large, man caused, fires within the urban interface. It also contains the Slinkard WSA. To complicate the situation the main East-side corridor, California Highway # 395 runs right through the middle of the area.

The Bodie compartment also has a number of areas on it's perimeter that contain an amount of urban interface and intermix. To add to the situation, the California State Park of Bodie, an old gold mining town, of high historic and tourist values sits within the center of the compartment. The town contains a multitude of structures in and around the Bodie bowl. These structures are extremely old and the wood very cured, they also are over grown with grass and weeds. The Park has little to no fire staff or equipment to protect the area or structures.

The rest of the areas within FMZ-B 4, RL 1, are not represented with the extremes as these two, but do represent areas of concern, where fire is involved.

It is evident that an aggressive Fire Prevention Program should be initiated within this zone. This should be done in conjunction with the U.S. Forest Service and the California Department of Forestry. These two areas boarder both the Inyo and Toiyabe National Forest and contain SRA lands, which the Bishop BLM is responsible for. The Prevention Program should include public education, public contact, periodic patrolling, signing and a presence at the Kiosk on California Highway # 395, next to the Topaz Fire Station. The prevention program should also involve itself and help the Park Service people at the Bodie State park. A full time (PFT) prevention position would be of great help in this area.

Step IV. Proposed Fire Management Direction

Narrative for Step IV. <u>FMZ-B 4, RL 1:</u>

* Confine and contain each unplanned ignition to less than 10 acres at least 90% of the time.

Currently the Field Office's involvement with prescribed fire has been limited to small (< 100 acres). But with the current national direction toward the re-introduction of fire into all

ecosystems that will benefit from it's use, the Field Office staff are attempting to build a fuels program which will achieve these goals. In 1997 the Bishop office did its first, in quite a few years, fuels/hazardous fuels treatment project. This year 1998, the program has expanded and will deal with two areas, the Fish Slough burn, which is the completion of last years beginning project. The unit contains five smaller units to be burned on a rotational bases. The next project is within the Trench Canyon area, just Southwest of Bodie. This will include three large valley bottoms, over a period of years. Also within FMZ-B 4, RL 1, their are opportunities for numerous other hazardous fuels and ecosystem management burns in the future. This direction is concurrent with the office's proposed 1000 acres of treatment each year.

Constraints

Due to the fragile soils and scars left by heavy equipment, suppression methods will minimize surface disturbing activities. This will include limiting bulldozed lines and heavy vehicles making new roads into fire sites. Handline construction will be used where practical. Mobile attack using lighter fire equipment as well as extended hose lays is also encouraged. Heavy equipment will be utilized to protect structures and improvements and where practical, to keep a wildland fire from spreading to private property. When aerial retardant is required, water is preferred. If rehabilitation of a fire site is required, a native seed mixture and weed free mulch will be used.

Other constraints include the adjacent and intermingled lands owned by other agencies or private citizens. The jurisdictional fire protection agency for those lands may have very different fire protection standards which could impact BLM's suppression strategies. These conflicts are usually resolved by utilizing a Unified Command under an Incident Command System (ICS) organizational concept. There are numerous ACEC's and WSA's in the zone that require special consideration in suppression operations. Scenic values are considered to be high and any air pollution is of concern to both residents and the military which uses the Owens Valley for training and testing purposes.

FMZ-B 4, RL 2: 523,085 acres

Step III. Preliminary Fire Management Strategies

Narrative for Step III. FMZ-B 4, RL 2: The protection standard for these five units, the Owens Valley, Long Valley, Benton, Granite Mountain and Coleville management areas that make up this zone is to keep fire 40 acres or smaller ninety percent of the time. These protection standards were developed because of considerations given to both T&E animals and special status plant species, riparian areas, archaeological sites, deer winter range and high levels of visitor and recreational use. Coupled with the urban interface, intermingled land ownership and the policies of the California State Fire Marshal, a somewhat aggressive initial attack strategy must be followed. There is an opportunity to develop prescribed fire

plans for some of these areas, specifically in those areas which would not impact any of the above mentioned considerations adversely and which would benefit from the introduction of fire into the ecosystem.

Within the areas represented by FMZ-B 4, RL 2, there are all levels, from high to low, represented in the risk, hazard and value analysis program. This unit runs the length of the Owens Valley and the California Highway # 395 corroder and some smaller land areas of the Bishop Resource Area. This unit of land contains all the towns from Olancha to the South to Topaz on the Nevada boarder to the North. It represents areas from high to low concentration of urban intermix and interface. High use areas, both locals and tourist. The BLM should have a high visibility prevention presence within this area. The BLM should work directly with the Inyo and Toiyabe National Forests, California Department of Forestry and all the local fire districts within a centralized fire prevention organization to accomplish the unified goals of all the agencies represented within the area. This should run from public contact to school programs to patrolling with law enforcement officers from all agencies to campground visitations and signing throughout the resource area. To this goal a dedicated full-time prevention position should be placed within the Bishop Field Office. The position would deal with both RL 1 & 2.

Step IV. Proposed Fire Management Direction

Narrative for Step IV. <u>FMZ-B 4, RL 2:</u>

* Confine and contain each unplanned ignition to less than 40 acres at least 90% of the time.

Currently the Field Office's involvement with prescribed fire has been limited to small (< 100 acres). But with the current national direction toward the re-introduction of fire into all ecosystems that will benefit from it's use, the Field Office staff are attempting to build a fuels program which will achieve these goals. The Bishop Resource Area Office has reentered the arena of fuels management, both hazardous and ecosystem management as of last year, 1997. One burn, of three units, was done last year and currently there are two burns on schedule for 1998 and we are looking at a number more. Most of these are within the RL 1, with a few new ones within RL 2. In the future, as the fuels program grows, the Bishop office will attempt to reach it's goal of 1000 acres per-year of hazardous/ecosystem management treatments. With the, hopefully, expanded use of 2823 funds and more 1010, this goal should not be too far off.

<u>Constraints</u>

Due to the fragile soils and scars left by heavy equipment, suppression methods will minimize surface disturbing activities. This will include limiting bulldozed lines and heavy vehicles making new roads into fire sites. Handline construction will be used where practical. Mobile attack using lighter fire equipment as well as extended hose lays is also encouraged. Heavy

equipment will be utilized to protect structures and improvements and where practical, to keep a wildland fire from spreading to private property. When aerial retardant is required, water is preferred. If rehabilitation of a fire site is required, a native seed mixture and weed free mulch will be used.

Other constraints include the adjacent and intermingled lands owned by other agencies or private citizens. The jurisdictional fire protection agency for those lands may have very different fire protection standards which could impact BLM's suppression strategies. These conflicts are usually resolved by utilizing a Unified Command under an Incident Command System (ICS) organizational concept. Scenic values are considered to be high and any air pollution is of concern to both residents and the military which uses the Owens Valley for training and testing purposes.

Fire Management Zone B5 Sierra: 369,674 acres

AVERAGE ANNUAL FIRE HISTORY DATA BY SIZE CLASS 1987 - 1996

SIZE CLASS	A	B	C	D	E	F	TOTAL
No. of Fires	6.1	5.5	3.4	1.0	.9	.9	17.8
No. of Acres	.75	14.1	137.6	172.6	498.3	4,328.1	5,151.5

FMZ B5-1 Interface: 305, 167 acres

Step III. Preliminary Fire Management Strategies

Narrative for Step III. FMZ B5-1 Interface: Use aggressive suppression tactics to attack fires, many threats to houses and other agency or private ownership. Utilize Wildland Fire Situation Analysis to derive and document most appropriate suppression alternative if fire escapes initial attack. Site specific protection guidelines and suppression standards are directed by the intermingled land patterns and increasing urban intermix pressures. Full action is taken on all fires, with the objective of limiting the acreage at the least cost and least damage. All fires are suppressed regardless of location, intensity or timing. With a fire history of large damaging fires, a full suppression effort must occur to assure protection of structures and private property.

Use management ignitions for hazard reduction near subdivisions to prevent catastrophic wildfires. The use of prescribed fire in this zone is recognized by all agencies. Use interagency burns to take advantage of landscape features and shared resources.

Use management ignitions to accomplish resource objectives like increasing plant diversity, improving wildlife habitat, and protecting watersheds. Piute Cypress ACEC: Provide mosaic of seral stages and protect potential habitat for plant species. In the long term, improve native plant community diversity and structure. Burning 160 to 220 acres per decade should achieve desired results.

Constraints

Fire is a common occurrence in the area and there is high concern from local residents. The urban intermix problem and high visibility of fire fighting activities place further protection guidelines on the BLM. Hazards in the area include steep terrain, rattlesnakes, utility lines, potential for heat exhaustion and structures. Fire spread is usually extreme and the fire behavior often exhibits classic blow-ups and runs up drainages. Military aircraft make use of the area for training purposes.

Fire suppression tactics are limited by topographic and fuel considerations, other land owner concerns, and sensitive environments. In this zone there are threatened and endangered

species habitat, riparian habitats, rare plants and improvements which must be protected on BLM land. Efforts are directed on containing the fire on BLM land.

Step IV. Proposed Fire Management Direction

Narrative for Step IV. <u>FMZ B5-1 Interface</u>:

- Confine and contain each unplanned ignition to less than 40 acres at least 90% of the time.
- Environmental Specialist will be requested any time fires are in or threatening any of the following ACECs or SMAs: Piute Cypress ACEC, Erskine Creek SMA, Granite Cave SMA, Horse Canyon ACEC, or KER 311 SMA.
- Horse Canyon ACEC is a culturally sensitive area, especially around rock outcroppings. No retardant on rocks, no dozers near culture sites.
- Develop interagency committee to identify a hazard reduction plan that best protects urban interface. Use mechanical equipment and hand crews to treat fuel accumulations. Create fuelbreaks and fire lines to conduct future hazard reduction burns in sensitive urban interface areas integrating aesthetics into design where possible.
- Target between 12,000 and 35,000 acres prescribe burning per decade.
- Increase public awareness of fire's role in the ecosystem. Hold open houses discussing challenges and possible solutions. Keep public involved in fire use and fuels management projects that will affect the air they breathe and the color of their back yard.
- Utilize Fire Prevention activities to target human fire causes. Actions should include patrolling on heavy use weekends, posting appropriate fire prevention signs, do fire hazard reduction in camping areas, and utilize interagency fire prevention association to get fire ecology message to children at schools and adults at local festivals.

<u>FMZ B5-2 Wilderness: 64,507 acres</u>

Step III. Preliminary Fire Management Strategies

Narrative for Step III. <u>FMZ B5-2 Wilderness</u>: Protection objectives have to be aggressive initial attack until there is an approved wilderness fire management plan (FMP). To use less than aggressive tactics, problems of proximity to urban interface (protection of structures and private property), and Highway 178 (visibility impairment due to smoke) must be solved.

The plan will also have to be interagency because fires can spread readily through BLM land into the Sequoia NF above. Site specific protection guidelines and suppression standards are directed by the intermingled land patterns and increasing urban intermix pressures. Full action is taken on all fires, with the objective of limiting the acreage at the least cost and least damage. For now, all fires are suppressed regardless of location, intensity or timing.

The use of prescribed fire in this zone would be to reduce fuel buildup near houses to allow fire in the future to play its natural role in a wildland setting. An FMP will specify prescription measures dictating the appropriate management response to a wildfire ignition.

Step IV. Proposed Fire Management Direction

Narrative for Step IV. <u>FMZ B5-2 Wilderness</u>:

- Confine and contain each unplanned ignition to less than 50 acres at least 90% of the time. Environmental Specialist are requested any time fires are in or threatening this area. Wildland Fire Situation Analysis is required for every wildland fire that is not immediately suppressed.

- Recognizing a desired fire frequency of 50 to 75 years, desired burned acres per decade is 1,500 to 3,700 acres.

- Utilize fire prevention activities around adjacent urban interface to reduce human caused ignitions. Actions should include patrolling on heavy use weekends, post appropriate fire prevention signs, do fire hazard reduction in camping areas, and utilize interagency fire prevention association to get fire ecology message to children at schools and adults at local festivals.

<u>Constraints</u>

- When engaged in suppressing wildfires in wilderness, the following Special Suppression Requirements will be incorporated into the fire suppression action *:
  a. Safety of fire-fighting personnel will receive the highest priority;
  b. All suppression actions will be carried out in a manner that least impairs wilderness values, i.e. minimum impact suppression techniques;
  c. Any action necessary to prevent loss of life or real property may be taken, even if the action impairs wilderness values if such action is consistent with the values at risk and the safety of personnel;
  d. All fires in wilderness that are protected by a non-Interior agency will have an Interior Department Agency Representative and Environmental Specialist assigned to the fire to advise the protecting agency of Interior Department laws and policies, including the Wilderness Act;
  e. Heavy equipment (bulldozers/tractors) will not be used in wilderness areas, except to prevent loss of human life or real property, or where specifically authorized by the Agency Administrator (Line Manager - Desert District

Manager or Superintendent);

f. All rubber-tired suppression vehicles will be driven on existing residual ways of passage;

g. Engines and portable pumps may be used to support fireline construction through hose lays, where possible;

h. Suppression tactics will attempt to use foam, fire-line explosives, fugitive (uncolored) retardant and other new technologies in lieu of more surface-disturbing suppression tactics;

i. Retardant will not be dropped no closer than 200' from any wetland or riparian area;

j. Where feasible, it will be acceptable to burn out ridges, washes, other natural barriers, and roads to stop the spread of fire and serve as control lines. Firelines may tie into but not proceed through meadows, spring areas, riparian zones or cultural sites;

k. Helicopters and retardant aircraft may be used in initial attack and as reinforcement as deemed necessary by the Incident Commander. Helicopters may be landed on existing heliports, helispots, or unimproved sites in wilderness;

l. Entry into wilderness should be by walking, helicopters on unimproved helispots, rappelling or smoke jumping to the greatest extent practicable;

m. Chainsaw use may be preapproved if necessary to prevent the fire from escaping initial attack or for helispot med-evac purposes;

n. Reclamation requirements will be determined by the Incident Commander and the Agency Representative. Reclamation will be determined during suppression activities while fire forces and equipment are still on incident.

*Developed 11/8/95: ANNEX 5 - PRINCIPLES FOR FIRE MANAGEMENT WITHIN WILDERNESS AREAS OF THE CALIFORNIA DESERT

Phase One Fire Planning Objectives Correlation & Summary

FMZ & Rep. Location	Phase One Burned Acres per Decade	Phase One Management Objectives	Actual % Success at MEL	Management Objectives Met at MEL
B1-1 Valley, Carrizo	20000 to 60000; grass only (Rx Burn 7000 to 10000 ac. of that)	500 ac. 90%	72%	Acceptable
B1-2 Valley, Grasslands	10000 to 34000; grass only	550 ac. 90%	85%	Acceptable
B3-1 Kern Plateau, Lightning	1600 to 5000 PJ; 2300 to 7000 Sage	10 ac. 90%	99%	Yes
B4-1 Owens Valley, Bodie	Rx burn 10,000 acres, Wildfire 3,035	10 ac. 90%	87%	Acceptable
B4-2 Owens Valley, Valley	Wildfire 2,440	40 ac. 90%	94%	Yes
B5-1 Sierra, Interface	12000 to 35000 (Rx Burn)	40 ac. 90%	87%	Acceptable
B5-1 Sierra, Wilderness	1500 to 3700	50 ac. 90%	64%	Acceptable
BBD Total	Rx Burn AC. = 20500 to 54000. Additional any type fire = 19400 to 59700. Total = 39900 to 113700			

ANALYSIS ZONE: B1
OPTION ID: HIS

OPTION SELECTOR TABLE

OPTION 1:HIS Historical

LOC:	12
[illegible]F13	05
[illegible]U03	50
C[illegible]BD01	22
C3CASLU01	30
C3CASLU02	50
D1CABBD3180	32
D2CABBD3181	32
D2CAKRN01	02
D2CAKRN02	02
E3CABBD3130	11
E3CABBD3130A	00
E3CABBD3134	11
E4CASLU42	20
E6CABBD3140	00
E6CABBD3140B	00
E6CABBD3147	13
EHCASLU41	30
ELFWS3149	32
EPCAKRN21	04
EPCAKRN22	03
EPCAKRN23	33
EPCAKRN24	41
HBCABBD555	00
HCCABBD557	33
HLCABBD555	00
HRCABBD556	00
HWCABBD555	33
W2CABBD3192B	00
W3CABBD3190	21
WPCAKRN23	02

ANALYSIS ZONE: B1

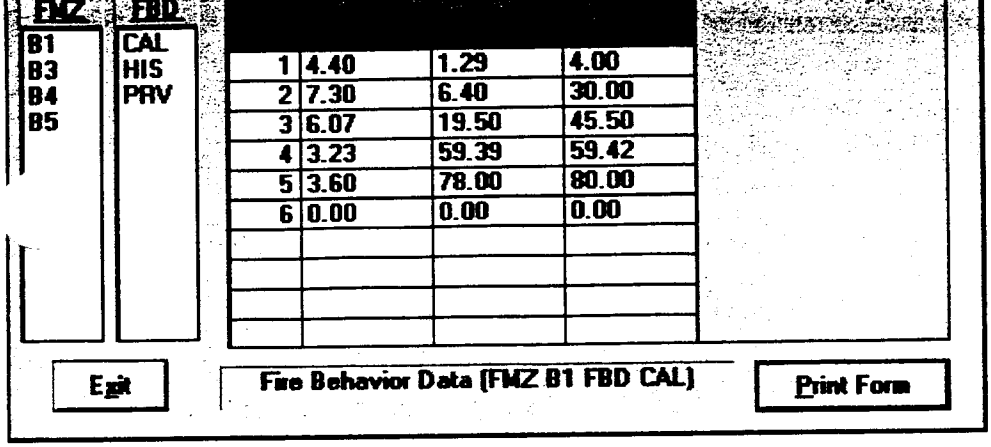
MASTER RESOURCE TABLE
DOLLAR AMOUNTS NOT INFLATED

UNIT ID	1	2	3	4	5	6	7	8	9	10	11	12
CD65	0.00	0.00										
	0	0										
	0	0										
F13	15.00	15.00										
	62	60										
	3420	3300										
A2NVCCD60	0.00	0.00										
	0	0										
	0	0										
A3CASLU03	6.00	6.00										
	58	62										
	1371	1437										
A3CATUU69	12.00	12.00										
	65	62										
	1503	1437										
C1CABBD01	30.00	30.00										
	135	82										
	1813	1725										
C3CAOVU01	0.00	0.00										
	0	0										
	0	0										
C3CAOVU02	0.00	0.00										
	0	0										
	0	0										
C3CAOVU03	0.00	0.00										
	0	0										
	0	0										
C3CAOVU04	0.00	0.00										
	0	0										
	0	0										
C3CASLU01	15.00	0.00										
	158	0										
	0	0										
C3CASLU02	15.00	0.00										
	158	0										
	0	0										
LU03	15.00	0.00										
	158	0										
	0	0										
C3CASQF04	0.00	0.00										
	0	0										
	0	0										
C3CASQF05	0.00	0.00										
	0	0										
	0	0										
D1CABBD3180	00.00	00.00										
	145	92										
	433	354										
D2CABBD3181	75.00	75.00										
	145	92										
	433	354										
D2CABBD3182	0.00	0.00										
	0	0										
	205	205										
D2CAKRN01	37.50	37.50										
	160	108										
	0	0										
D2CAKRN02	37.50	37.50										
	160	108										
	0	0										
D2CAOVU43	0.00	0.00										
	0	0										
	0	0										
E3CABBD3130	80.00	80.00										
	135	82										
	665	628										
E3CABBD3130A	80.00	80.00										
	60	68										
	491	491										
BD3131	0.00	0.00										
	0	0										

E3CABBD3131A	**0.00**	**0.00**
	0	0
	569	569
E3CABBD3131B	0.00	0.00
	0	0
	569	569
E3CABBD3131D	0.00	0.00
	0	0
	569	569
[illegible]D3132	0.00	0.00
	0	0
	569	569
E3CABBD3132A	0.00	0.00
	0	0
	569	569
E3CABBD3132B	0.00	0.00
	0	0
	569	569
E3CABBD3133	0.00	0.00
	0	0
	569	569
E3CABBD3134	80.00	80.00
	52	90
	685	711
E3CABBD3135	0.00	0.00
	0	0
	569	569
E4CASLU42	17.50	0.00
	78	0
	0	0
E6CABBD3140	40.00	40.00
	135	82
	474	427
E6CABBD3140A	0.00	0.00
	0	0
	330	330
E6CABBD3140B	40.00	40.00
	60	68
	407	414
E6CABBD3141	0.00	0.00
	0	0
	330	330
[illegible]D3142	0.00	0.00
	0	0
	330	330
E6CABBD3142A	0.00	0.00
	0	0
	330	330
E6CABBD3142B	0.00	0.00
	0	0
	330	330
E6CABBD3143	0.00	0.00
	0	0
	330	330
E6CABBD3144	0.00	0.00
	0	0
	330	330
E6CABBD3145	0.00	0.00
	0	0
	330	330
E6CABBD3146	0.00	0.00
	0	0
	330	330
E6CABBD3146A	0.00	0.00
	0	0
	330	330
E6CABBD3147	40.00	40.00
	52	90
	400	434
EHCACDD3634	0.00	0.00
	0	0
	0	0
EHCAINF21	0.00	0.00
	0	0
	0	0
EHCAINF22	0.00	0.00
	0	0
	0	0

	0	0
	0	0
EHCAINF32	0.00	0.00
	0	0
	0	0
EHCAINF41	0.00	0.00
	0	0
	0	0
3573	0.00	0.00
	0	0
	0	0
EHCASLU41	40.00	0.00
	95	0
	0	0
EHCASQF51	0.00	0.00
	0	0
	0	0
EHCASQF52	0.00	0.00
	0	0
	0	0
EHCASQF53	0.00	0.00
	0	0
	0	0
EHCASQF61	0.00	0.00
	0	0
	0	0
ELCAINF11	0.00	0.00
	0	0
	0	0
ELCAINF12	0.00	0.00
	0	0
	0	0
ELCASQF65	0.00	0.00
	0	0
	0	0
ELCATOY7231	0.00	0.00
	0	0
	0	0
ELCATOY7232	0.00	0.00
	0	0
	0	0
Y7233	0.00	0.00
	0	0
	0	0
3149	40.00	40.00
	120	60
	0	0
EPCAKRN21	17.50	17.50
	80	58
	0	0
EPCAKRN22	17.50	17.50
	88	65
	0	0
EPCAKRN23	17.50	17.50
	72	58
	0	0
EPCAKRN24	17.50	17.50
	88	65
	0	0
EPCAKRN71	0.00	0.00
	0	0
	0	0
EPCAKRN72	0.00	0.00
	0	0
	0	0
FPT16	0.00	0.00
	0	0
	109	109
FPT17	0.00	0.00
	0	0
	109	109
H3CAINF525	0.00	0.00
	0	0
	0	0
SQF23	0.98	0.98
	50	50
	0	0
ATOY	0.00	0.00

	0	0
HBCABBD555	3.00	3.00
	95	86
	1050	840
HCCABBD557	18.00	18.00
	90	81
	971	971
BD555	1.00	1.00
	86	78
	900	750
HCABBD556	18.00	18.00
	75	66
	1021	1021
HWCABBD555	3.00	3.00
	110	101
	1050	840
W2CABBD3191	0.00	0.00
	0	0
	174	174
W2CABBD3191D	0.00	0.00
	0	0
	155	155
W2CABBD3192A	0.00	0.00
	0	0
	155	155
W2CABBD3192B	0.00	0.00
	56	99
	200	234
W2CABBD3192C	0.00	0.00
	0	0
	155	155
W3CABBD3190	0.00	0.00
	135	82
	229	204
WPCAKRN23	0.00	0.00
	72	58
	0	0
WPCAKRN71	0.00	0.00
	0	0
	0	0
CAKRN72	0.00	0.00
	0	0
	0	0


FMZ
B1
B3
B4
B5
FBD
CAL
HIS
PRV
1 4.40 1.29 4.00
2 7.30 6.40 30.00
3 6.07 19.50 45.50
4 3.23 59.39 59.42
5 3.60 78.00 80.00
6 0.00 0.00 0.00
Exit
Fire Behavior Data (FMZ B1 FBD CAL)
Print Form

ANALYSIS ZONE: B1

PER ACRE SUPPRESSION COST
DOLLAR AMOUNTS NOT INFLATED

ACRE LIMIT	$ COST
0.3	6770
0.0	608
100.0	76
300.0	59
1000.0	14
999999.0	12

ANALYSIS ZONE: B1
FBD: CAL

ESCAPED FIRE TABLE

RL	1	2	3	4	5	6
	1001	1200	2500	3500	4700	19829
	1001	1900	3000	4200	19829	19839
	1001	1200	2200	2800	3200	19829
	1001	1900	2500	3000	4100	19839

ADMIN UNIT: 1
ANALYSIS ZONE: B1
FUEL MODEL: A
MAX FIRE SIZE MODELLED: 1000 AC W/ TIME LIMIT OF: 24 HRS
OPTION ID: MEL
FBD: CAL

SUMMARY BY INTENSITY LEVEL AND FINAL SIZE OF FIRES
DOLLAR AMOUNTS NOT INFLATED

FIL	# FIRES	ROS CH/HR	REP LOC	FINAL SIZE	FREQ PER YR	EVENT SUPP $	EVENT NVC $
1	4.40	1.29	1	0.06	0.211	1511	0
			2	0.14	3.309	1767	-1
		4.00	1	0.56	0.053	1424	-4
			2	1.39	0.827	1679	-10
2	7.30	6.40	1	1.57	0.350	2237	-22
			2	3.09	5.490	4435	-43
		30.00	1	134.50	0.088	9220	-1883
			2	102.23	1.372	10321	-1431
3	6.07	19.50	1	26.58	0.291	4325	-744
			2	33.63	4.565	6974	-942
		45.50	1	424.19	0.073	12071	-11877
			2	253.95	1.141	21273	-7110
4	3.23	59.39	1	820.78	0.155	18056	-35294
			2	509.24	2.429	13420	-21897
		59.42	1	821.61	0.039	18068	-35329
			2	509.75	0.607	13427	-21919
5	3.60	78.00	1	4700.00*	0.173	56400	-267900
			2	3200.00*	2.707	38400	-182400
		80.00	1	19829.00*	0.043	237948	-1130253
			2	4100.00*	0.677	49200	-233700

SUPPRESSION TABLE 1
ADMIN UNIT: 1
ANALYSIS ZONE: B1
FUEL MODEL: A
MAX FIRE SIZE MODELLED: 1000 AC W/ TIME LIMIT OF: 24 HRS
OPTION ID: MEL
FBD: CAL

EXPECTED ANNUAL ACRES BURNED BY FIRE SIZE AND INTENSITY

	0-.25	.26-9.99	10-99.99	100-299.99	300-999.99	1000+ ESC	TOTAL
1	0.47	1.18	0.00	0.00	0.00	0.00	1.65
2	0.00	17.51	0.00	152.08	0.00	0.00	169.60
3	0.00	0.00	161.27	289.79	30.90	0.00	481.96
4	0.00	0.00	0.00	0.00	1705.56	0.00	1705.56
5	0.00	0.00	0.00	0.00	0.00	13106.69	13106.69
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	0.47	18.70	161.27	441.88	1736.46	13106.69	15465.46
HIST	0.46	18.26	167.80	434.70	1752.22	13070.50	15443.94
% DIF	2	2	-4	2	-1	0	0
CUM %	0.00	0.12	1.17	4.02	15.25	100.00	

SUPPRESSION TABLE 2a
ADMIN UNIT: 1
ANALYSIS ZONE: B1
FUEL MODEL: A
MAX FIRE SIZE MODELLED: 1000 AC W/ TIME LIMIT OF: 24 HRS
OPTION ID: MEL
FBD: CAL

FRACTION OF EXPECTED ACRES BURNED FROM EFT

FIL	0-.25	.26-9.99	10-99.99	100-299.99	300-999.99	1000+ ESC	TOTAL
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	1.00	1.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	1.00	1.00

ADMIN UNIT: 1
ANALYSIS ZONE: B1
FUEL MODEL: A
MAX FIRE SIZE MODELLED: 1000 AC W/ TIME LIMIT OF: 24 HRS
OPTION ID: MEL
FBD: CAL

EXPECTED ANNUAL NUMBER OF FIRES BY SIZE AND INTENSITY

	0-.25	.26-9.99	10-99.99	100-299.99	300-999.99	1000+ ESC	TOTAL
1	3.52	0.88	0.00	0.00	0.00	0.00	4.40
2	0.00	5.84	0.00	1.46	0.00	0.00	7.30
3	0.00	0.00	4.86	1.14	0.07	0.00	6.07
4	0.00	0.00	0.00	0.00	3.23	0.00	3.23
5	0.00	0.00	0.00	0.00	0.00	3.60	3.60
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	3.52	6.72	4.86	2.60	3.30	3.60	24.60
HIST	3.50	6.70	4.80	2.70	3.30	3.60	24.60
% DIF	1	0	1	-4	0	0	0
CUM %	14.31	41.63	61.37	71.94	85.37	100.00	

ADMIN UNIT: 1
ANALYSIS ZONE: B1
FUEL MODEL: A
MAX FIRE SIZE MODELLED: 1000 AC W/ TIME LIMIT OF: 24 HRS
OPTION ID: MEL
FBD: CAL

SUMMARY OF ANNUAL FIRE VALUES BY REP. LOCATION

LC	FREQ	ACRES	EM SUPP COST	NVC	SUPP + NVC
1	1.48	1878.89	29322	-109459	138782
2	23.12	13586.57	296789	-777426	1074216
TOTAL	24.60	15465.46	326112	-886886	1212998

SUPPRESSION TABLE 4a 05-24-1998 16:57:24
ADMIN UNIT: 1
ANALYSIS ZONE: B1
FUEL MODEL: A
MAX FIRE SIZE MODELLED: 1000 AC W/ TIME LIMIT OF: 24 HRS
OPTION ID: MEL
FBD: CAL

NET VALUE CHANGE SUMMARY
(ALL VALUES ARE IN WHOLE DOLLARS)

RL	TIMBER	FORAGE	WTR USE	WTR STR	FISH	WILD	REC	IMPROVE	TOTAL
1	0	-2325	0	0	0	-98308	-6702	-2124	-109459
2	0	-16612	0	0	0	-698076	-47621	-15117	-777426
SUM	0	-18937	0	0	0	-796383	-54323	-17242	-886886

SUPPRESSION TABLE 4 05-24-1998 16:57:24
ADMIN UNIT: 1
ANALYSIS ZONE: B1
FUEL MODEL: A
MAX FIRE SIZE MODELLED: 1000 AC W/ TIME LIMIT OF: 24 HRS
OPTION ID: MEL
FBD: CAL

SUMMARY OF ANNUAL FIRE VALUES BY REP. LOCATION

LOC	FREQ	ACRES	EM SUPP COST	NVC	SUPP + NVC
1	1.48	1878.89	29322	-109459	138782
2	23.12	13586.57	296789	-777426	1074216
TOTAL	24.60	15465.46	326112	-886886	1212998

SUPPRESSION TABLE 4a 05-24-1998 16:57:24
ADMIN UNIT: 1
ANALYSIS ZONE: B1
FUEL MODEL: A
MAX FIRE SIZE MODELLED: 1000 AC W/ TIME LIMIT OF: 24 HRS
OPTION ID: MEL
FBD: CAL

NET VALUE CHANGE SUMMARY
(ALL VALUES ARE IN WHOLE DOLLARS)

RL	TIMBER	FORAGE	WTR USE	WTR STR	FISH	WILD	REC	IMPROVE	TOTAL
1	0	-2325	0	0	0	-98308	-6702	-2124	-109459
2	0	-16612	0	0	0	-698076	-47621	-15117	-777426
SUM	0	-18937	0	0	0	-796383	-54323	-17242	-886886

SUPPRESSION TABLE 5 05-24-1998 14:19:32
ADMIN UNIT: 1
ANALYSIS ZONE: B1
FUEL MODEL: A
MAX FIRE SIZE MODELLED: 1000 AC W/ TIME LIMIT OF: 24 HRS
OPTION ID: MEL
FBD: CAL

DISPATCH SUMMARY
(EXPECTED ANNUAL NUMBER OF MISSIONS)

UNIT ID	1	2	3	4	5	6	TOTAL DISP
E3CABBD3134	0.26	7.30	6.07	3.23	3.60	0.00	20.46
E6CABBD3147	0.26	7.30	6.07	3.23	3.60	0.00	20.46
W2CABBD3192B	0.00	7.30	6.07	3.23	3.60	0.00	20.20
A3CASLU03	0.00	0.00	0.00	0.00	0.22	0.00	0.22
EPCAKRN23	0.00	0.00	5.71	3.23	3.60	0.00	12.54
HRCABBD556	0.00	0.00	6.07	3.23	3.60	0.00	12.90
E4CASLU42	0.00	0.00	0.36	0.19	0.22	0.00	0.77
EPCAKRN24	4.14	6.86	5.71	3.23	3.60	0.00	23.53
EHCASLU41	0.00	0.00	0.36	0.19	0.22	0.00	0.77
HBCABBD555	0.00	0.00	6.07	3.23	3.60	0.00	12.90
ELFWS3149	0.00	6.86	5.71	3.23	3.60	0.00	19.40
C1CABBD01	0.00	6.86	6.07	3.23	3.38	0.00	19.55
W3CABBD3190	4.14	6.86	6.07	3.23	3.38	0.00	23.68
E3CABBD3130	4.14	6.86	6.07	3.23	3.38	0.00	23.68
D1CABBD3180	0.00	6.86	5.71	3.23	3.38	0.00	19.18
WPCAKRN23	0.00	0.00	5.71	3.04	3.38	0.00	12.13
EPCAKRN21	0.00	0.00	0.00	3.04	3.38	0.00	6.42
A2CASQF13	0.00	0.00	0.00	0.00	3.38	0.00	3.38
EPCAKRN22	0.00	0.00	5.71	3.04	3.38	0.00	12.13
D2CAKRN01	0.00	0.00	0.00	0.00	3.38	0.00	3.38
TOTAL	12.94	63.07	83.52	48.26	59.90	0.00	267.69

OST INPUT TABLE
ANALYSIS ZONE: B3
OPTION ID: HIS

OPTION SELECTOR TABLE

OPTION	1:HIS Historical
:	1
A2CASQF13	4
A3CATUU69	5
C1CABBD01	2
C3CASQF05	3
E3CABBD3130	0
E3CABBD3133	3
E6CABBD3143	0
E6CABBD3144	1
E6CABBD3145	1
E6CABBD3146	2
E6CABBD3146A	0
EHCACDD3634	4
EHCASQF61	3
H3CASQF23	6
HBCABBD555	0
HCCABBD557	3
HLCABBD555	0
HRCABBD556	0
HWCABBD555	3
W2CABBD3191	0

MRT INPUT TABLE
ANALYSIS ZONE: B3

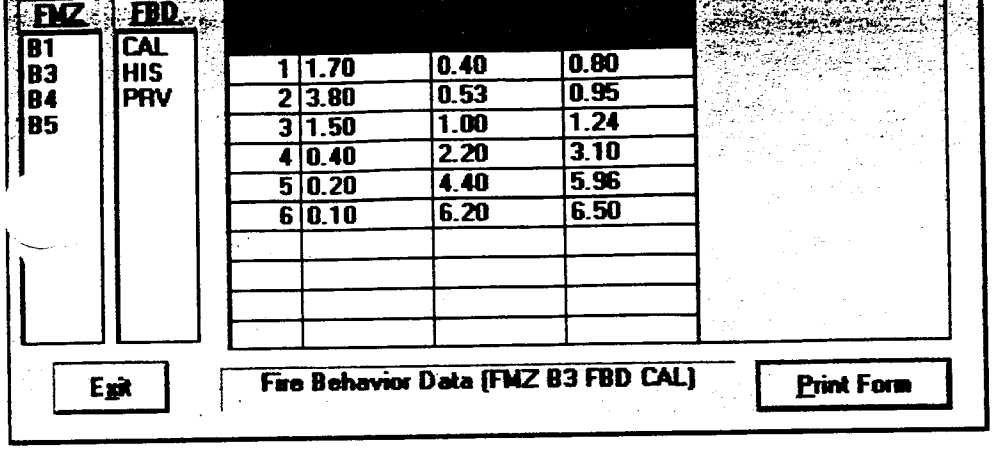
MASTER RESOURCE TABLE
DOLLAR AMOUNTS NOT INFLATED

UNIT ID	1	2	3	4	5	6	7	8	9	10	11	12
:CD65	0.00											
	0											
	0											
A2CASQF13	15.00											
	55											
	3120											
A2NVCCD60	0.00											
	0											
	0											
A3CASLU03	0.00											
	0											
	0											
A3CATUU69	12.00											
	57											
	1338											
C1CABBD01	6.00											
	225											
	1889											
C3CAOVU01	0.00											
	0											
	0											
C3CAOVU02	0.00											
	0											
	0											
C3CAOVU03	0.00											
	0											
	0											
C3CAOVU04	0.00											
	0											
	0											
C3CASLU01	0.00											
	0											
	0											
\SLU02	0.00											
	0											
	0											
.SLU03	0.00											
	0											
	0											
C3CASQF04	4.50											
	315											
	0											
C3CASQF05	4.50											
	180											
	0											
D1CABBD3180	0.00											
	0											
	501											
D2CABBD3181	0.00											
	0											
	501											
D2CABBD3182	0.00											
	0											
	377											
D2CAKRN01	0.00											
	0											
	0											
D2CAKRN02	0.00											
	0											
	0											
D2CAOVU43	0.00											
	0											
	0											
E3CABBD3130	3.50											
	225											
	697											
E3CABBD3130A	0.00											
	0											
	491											
.ABBD3131	0.00											

	569
E3CABBD3131A	0.00
	0
	569
E3CABBD3131B	0.00
	0
	569
BD3131D	0.00
	0
	569
E3C BD3132	0.00
	0
	569
E3CABBD3132A	0.00
	0
	569
E3CABBD3132B	0.00
	0
	569
E3CABBD3133	3.50
	120
	701
E3CABBD3134	0.00
	0
	569
E3CABBD3135	0.00
	0
	569
E4CASLU42	0.00
	0
	0
E6CABBD3140	2.10
	225
	514
E6CABBD3140A	0.00
	0
	330
E6CABBD3140B	0.00
	0
	330
E6C BD3141	0.00
	0
	330
BD3142	0.00
	0
	330
E6CABBD3142A	0.00
	0
	330
E6CABBD3142B	0.00
	0
	330
E6CABBD3143	2.10
	143
	440
E6CABBD3144	2.10
	83
	387
E6CABBD3145	2.10
	83
	387
E6CABBD3146	2.10
	120
	420
E6CABBD3146A	2.10
	120
	420
E6CABBD3147	0.00
	0
	330
EHCACDD3634	1.40
	230
	0
EHCAINF21	0.00
	0
	0
NF22	0.00
	0

EHCAINF31	0.00
	0
	0
EHCAINF32	0.00
	0
	0
EHCAINF41	0.00
	0
	0
J3573	0.00
	0
	0
EHCASLU41	0.00
	0
	0
EHCASQF51	1.05
	207
	0
EHCASQF52	0.00
	0
	0
EHCASQF53	1.05
	207
	0
EHCASQF61	1.05
	147
	0
ELCAINF11	0.00
	0
	0
ELCAINF12	0.00
	0
	0
ELCASQF65	1.58
	125
	0
ELCATOY7231	0.00
	0
	0
ELCATOY7232	0.00
	0
	0
Y7233	0.00
	0
	0
ELFWS3149	0.00
	0
	0
EPCAKRN21	0.00
	0
	0
EPCAKRN22	0.00
	0
	0
EPCAKRN23	0.00
	0
	0
EPCAKRN24	0.00
	0
	0
EPCAKRN71	0.00
	0
	0
EPCAKRN72	0.00
	0
	0
FPT16	0.70
	75
	190
FPT17	0.00
	0
	109
H3CAINF525	0.00
	0
	0
QF23	0.98
	50
	0

	0
	0
HBCABBD555	3.00
	74
	560
HCCABBD557	4.00
	114
	971
D555	1.00
	67
	550
HRCABBD556	4.00
	54
	1021
HWCABBD555	3.00
	89
	560
W2CABBD3191	0.00
	107
	260
W2CABBD3191D	0.00
	0
	155
W2CABBD3192A	0.00
	0
	155
W2CABBD3192B	0.00
	0
	155
W2CABBD3192C	0.00
	0
	155
W3CABBD3190	0.00
	180
	250
WPCAKRN23	0.00
	0
	0
WPCAKRN71	0.00
	0
	0
KRN72	0.00
	0
	0


FMZ
FBD
B1
B3
B4
B5
CAL
HIS
PRV
1 1.70 0.40 0.80
2 3.80 0.53 0.95
3 1.50 1.00 1.24
4 0.40 2.20 3.10
5 0.20 4.40 5.96
6 0.10 6.20 6.50
Exit
Fire Behavior Data (FMZ B3 FBD CAL)
Print Form

AAC INPUT TABLE
ANALYSIS ZONE: B3

PER ACRE SUPPRESSION COST
DOLLAR AMOUNTS NOT INFLATED

ACRE 'IT	$ COST
).3	26846
ı0.0	4631
999999.0	3935

EFT INPUT TABLE
ANALYSIS ZONE: B3
FBD: CAL

ESCAPED FIRE TABLE

RL	1	2	3	4	5	6
	11	19	27	35	43	50
	11	19	27	35	43	50

SUPPRESSION TABLE 1 05-24-1998 16:55:49
ADMIN UNIT: 1
ANALYSIS ZONE: B3
FUEL MODEL: F
MAX FIRE SIZE MODELLED: 10 AC W/ TIME LIMIT OF: 24 HRS
OPTION ID: MEL
FRD: CAL

SUMMARY BY INTENSITY LEVEL AND FINAL SIZE OF FIRES
DOLLAR AMOUNTS NOT INFLATED

FIL	# FIRES	ROS CH/HR	REP LOC	FINAL SIZE	FREQ PER YR	EVENT SUPP $	EVENT NVC $
1	1.70	0.40	1	0.04	1.360	1751	-1
		0.80	1	0.20	0.340	6087	-7
2	3.80	0.53	1	0.06	3.040	2832	-3
		0.95	1	0.24	0.760	8013	-12
3	1.50	1.00	1	0.09	1.200	4740	-8
		1.24	1	0.15	0.300	6437	-14
4	0.40	2.20	1	0.70	0.320	5981	-97
		3.10	1	1.89	0.080	12715	-263
5	0.20	4.40	1	2.43	0.160	21662	-408
		5.96	1	9.21	0.040	55077	-1547
6	0.10	6.20	1	9.96	0.080	58576	-1963
		6.50	1	50.00*	0.020	196750	-9850

SUPPRESSION TABLE 2 05-24-1998 17:00:10
ADMIN UNIT: 1
ANALYSIS ZONE: B3
FUEL MODEL: F
MAX FIRE SIZE MODELLED: 10 AC W/ TIME LIMIT OF: 24 HRS
OPTION ID: MEL
FBD: CAL

EXPECTED ANNUAL ACRES BURNED BY FIRE SIZE AND INTENSITY

	0-.25	.26-9.99	10-99.99	100-299.99	300-999.99	1000+ ESC	TOTAL
1	0.12	0.00	0.00	0.00	0.00	0.00	0.12
2	0.37	0.00	0.00	0.00	0.00	0.00	0.37
3	0.15	0.00	0.00	0.00	0.00	0.00	0.15
4	0.00	0.37	0.00	0.00	0.00	0.00	0.37
5	0.00	0.76	0.00	0.00	0.00	0.00	0.76
6	0.00	0.80	1.00	0.00	0.00	0.00	1.80
TOTAL	0.64	1.93	1.00	0.00	0.00	0.00	3.56
HIST	0.73	1.07	5.00	0.00	0.00	0.00	6.80
% DIF	-12	80	-80	0	0	0	-48
CUM %	17.83	71.94	100.00	100.00	100.00	100.00	

SUPPRESSION TABLE 2a
ADMIN UNIT: 1
ANALYSIS ZONE: B3
FUEL MODEL: F
MAX FIRE SIZE MODELLED: 10 AC W/ TIME LIMIT OF: 24 HRS
OPTION ID: MEL
FBD: CAL

FRACTION OF EXPECTED ACRES BURNED FROM EFT

FIL	0-.25	.26-9.99	10-99.99	100-299.99	300-999.99	1000+ ESC	TOTAL
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	1.00	0.00	0.00	0.00	1.00
L	0.00	0.00	1.00	0.00	0.00	0.00	1.00

SUPPRESSION TABLE 3 05-24-1998 17:01:53
ADMIN UNIT: 1
ANALYSIS ZONE: B3
FUEL MODEL: F
MAX FIRE SIZE MODELLED: 10 AC W/ TIME LIMIT OF: 24 HRS
OPTION ID: MEL
FBD: CAL

EXPECTED ANNUAL NUMBER OF FIRES BY SIZE AND INTENSITY

	0-.25	.26-9.99	10-99.99	100-299.99	300-999.99	1000+ ESC	TOTAL
1	1.70	0.00	0.00	0.00	0.00	0.00	1.70
2	3.80	0.00	0.00	0.00	0.00	0.00	3.80
3	1.50	0.00	0.00	0.00	0.00	0.00	1.50
4	0.00	0.40	0.00	0.00	0.00	0.00	0.40
5	0.00	0.20	0.00	0.00	0.00	0.00	0.20
6	0.00	0.08	0.02	0.00	0.00	0.00	0.10
TOTAL	7.00	0.68	0.02	0.00	0.00	0.00	7.70
HIST	7.00	0.60	0.10	0.00	0.00	0.00	7.70
% DIF	0	13	-80	0	0	0	0
CUM %	90.91	99.74	100.00	100.00	100.00	100.00	

SUPPRESSION TABLE 4 05-24-1998 16:57:27
ADMIN UNIT: 1
ANALYSIS ZONE: B3
FUEL MODEL: F
MAX FIRE SIZE MODELLED: 10 AC W/ TIME LIMIT OF: 24 HRS
OPTION ID: MEL
FBD: CAL

SUMMARY OF ANNUAL FIRE VALUES BY REP. LOCATION

LOC	FREQ	ACRES	EM SUPP COST	NVC	SUPP + NVC
1	7.70	3.56	46651	-603	47255
TOTAL	7.70	3.56	46651	-603	47255

SUPPRESSION TABLE 4a 05-24-1998 16:57:27
ADMIN UNIT: 1
ANALYSIS ZONE: B3
FUEL MODEL: F
MAX FIRE SIZE MODELLED: 10 AC W/ TIME LIMIT OF: 24 HRS
OPTION ID: MEL
FBD: CAL

NET VALUE CHANGE SUMMARY
(ALL VALUES ARE IN WHOLE DOLLARS)

RL	TIMBER	FORAGE	WTR USE	WTR STR	FISH	WILD	REC	IMPROVE	TOTAL
1	0	-4	0	-30	0	-512	-54	-4	-603
SUM	0	-4	0	-30	0	-512	-54	-4	-603

SUPPRESSION TABLE 5 05-24-1998 14:20:45
ADMIN UNIT: 1
ANALYSIS ZONE: B3
FUEL MODEL: F
MAX FIRE SIZE MODELLED: 10 AC W/ TIME LIMIT OF: 24 HRS
OPTION ID: MEL
FBD: CAL

DISPATCH SUMMARY
(EXPECTED ANNUAL NUMBER OF MISSIONS)

UNIT ID	1	2	3	4	5	6	TOTAL DISP
H3CASQF23	0.00	0.00	0.00	0.00	0.00	0.10	0.10
HRCABBD556	0.00	0.00	1.50	0.40	0.20	0.10	2.20
A2CASQF13	0.00	0.00	0.00	0.00	0.20	0.10	0.30
A3CATUU69	0.00	0.00	0.00	0.00	0.20	0.10	0.30
HBCABBD555	0.00	0.00	1.50	0.40	0.20	0.10	2.20
E6CABBD3144	1.70	3.80	1.50	0.40	0.20	0.10	7.70
E6CABBD3145	1.70	3.80	1.50	0.40	0.20	0.10	7.70
W2CABBD3191	0.00	0.00	0.00	0.40	0.20	0.10	0.70
E3CABBD3133	0.00	0.00	0.00	0.40	0.20	0.10	0.70
E6CABBD3146	0.00	3.80	0.00	0.40	0.20	0.10	4.50
E6CABBD3143	0.00	3.80	0.00	0.00	0.20	0.10	4.10
EHCASQF61	0.00	0.00	0.00	0.00	0.20	0.10	0.30
TOTAL	3.40	15.20	6.00	2.80	2.20	1.20	30.80

OST INPUT TABLE
ANALYSIS ZONE: B4
OPTION ID: HIS

OPTION SELECTOR TABLE

OPTION 1:HIS Historical

OC: 12

A. 065	35
A2NvCD60	54
C3CAOVU01	44
C3CAOVU03	55
D2CAOVU43	03
E3CABBD3131	11
E3CABBD3131A	00
E3CABBD3131B	00
E3CABBD3131D	00
E3CABBD3132	11
E3CABBD3132A	00
E3CABBD3132B	00
E3CABBD3135	00
E6CABBD3140A	00
E6CABBD3141	11
E6CABBD3142	21
E6CABBD3142A	00
E6CABBD3142B	00
EHCAINF22	54
EHCAINF31	02
EHCAINF32	03
EHCAINF41	04
EHCAOVU3573	03
ELCAINF11	30
ELCAINF12	40
ELCATOY7231	33
ELCATOY7232	30
ELCATOY7233	40
H3CAINF525	03
H3CATOY	25
W2CABBD3192A	01

MRT INPUT TABLE
ANALYSIS ZONE: B4

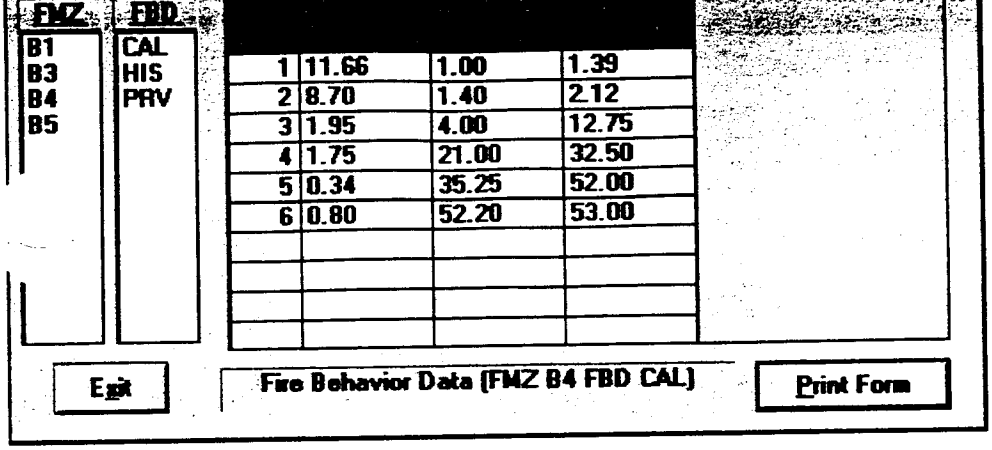
MASTER RESOURCE TABLE
DOLLAR AMOUNTS NOT INFLATED

UNIT ID	1	2	3	4	5	6	7	8	9	10	11	12
?65	30.00	30.00										
	54	67										
	4880	5980										
A2CASQF13	0.00	0.00										
	0	0										
	0	0										
A2NVCCD60	20.00	20.00										
	70	85										
	3720	4320										
A3CASLU03	0.00	0.00										
	0	0										
	0	0										
A3CATUU69	0.00	0.00										
	0	0										
	0	0										
C1CABBD01	0.00	0.00										
	0	0										
	1487	1487										
C3CAOVU01	12.00	12.00										
	215	75										
	0	0										
C3CAOVU02	12.00	12.00										
	215	75										
	0	0										
C3CAOVU03	12.00	12.00										
	215	75										
	0	0										
C3CAOVU04	12.00	12.00										
	215	75										
	0	0										
C3CASLU01	0.00	0.00										
	0	0										
	0	0										
?LU02	0.00	0.00										
	0	0										
	0	0										
?LU03	0.00	0.00										
	0	0										
	0	0										
C3CASQF04	0.00	0.00										
	0	0										
	0	0										
C3CASQF05	0.00	0.00										
	0	0										
	0	0										
D1CABBD3180	0.00	0.00										
	0	0										
	205	205										
D2CABBD3181	0.00	0.00										
	0	0										
	205	205										
D2CABBD3182	0.00	0.00										
	0	0										
	205	205										
D2CAKRN01	0.00	0.00										
	0	0										
	0	0										
D2CAKRN02	0.00	0.00										
	0	0										
	0	0										
D2CAOVU43	0.00	11.00										
	0	70										
	0	0										
E3CABBD3130	0.00	0.00										
	0	0										
	491	491										
E3CABBD3130A	0.00	0.00										
	0	0										
	491	491										
ABBD3131	15.00	60.00										

	851	723
E3CABBD3131A	15.00	60.00
	178	68
	851	723
E3CABBD3131B	15.00	60.00
	72	128
	701	808
`BD3131D	15.00	60.00
	215	68
	904	723
E `3132	15.00	60.00
	80	135
	712	819
E3CABBD3132A	15.00	60.00
	178	68
	851	723
E3CABBD3132B	15.00	60.00
	72	128
	701	808
E3CABBD3133	0.00	0.00
	0	0
	569	569
E3CABBD3134	0.00	0.00
	0	0
	569	569
E3CABBD3135	15.00	60.00
	110	150
	711	754
E4CASLU42	0.00	0.00
	0	0
	0	0
E6CABBD3140	0.00	0.00
	0	0
	330	330
E6CABBD3140A	9.00	25.00
	215	68
	527	414
E6CABBD3140B	0.00	0.00
	0	0
	330	330
E6CABBD3141	9.00	25.00
	110	150
	434	487
`D3142	9.00	25.00
	178	68
	494	414
E6CABBD3142A	9.00	25.00
	178	68
	494	414
E6CABBD3142B	9.00	25.00
	72	128
	400	467
E6CABBD3143	0.00	0.00
	0	0
	330	330
E6CABBD3144	0.00	0.00
	0	0
	330	330
E6CABBD3145	0.00	0.00
	0	0
	330	330
E6CABBD3146	0.00	0.00
	0	0
	330	330
E6CABBD3146A	0.00	0.00
	0	0
	330	330
E6CABBD3147	0.00	0.00
	0	0
	330	330
EHCACDD3634	0.00	0.00
	0	0
	0	0
EHCAINF21	4.50	45.00
	130	65
	0	0
`NF22	4.50	45.00
	130	65

EHCAINF31	4.50	45.00
	220	72
	0	0
EHCAINF32	0.00	45.00
	0	50
	0	0
EHCAINF41	4.50	45.00
	355	155
	0	0
E 3573	3.00	30.00
	205	65
	0	0
EHCASLU41	0.00	0.00
	0	0
	0	0
EHCASQF51	0.00	0.00
	0	0
	0	0
EHCASQF52	0.00	0.00
	0	0
	0	0
EHCASQF53	0.00	0.00
	0	0
	0	0
EHCASQF61	0.00	0.00
	0	0
	0	0
ELCAINF11	6.75	18.75
	100	125
	0	0
ELCAINF12	6.75	18.75
	145	88
	0	0
ELCASQF65	0.00	0.00
	0	0
	0	0
ELCATOY7231	6.75	18.75
	115	155
	0	0
ELCATOY7232	6.75	18.75
	92	155
	0	0
Y7233	6.75	18.75
	92	155
	0	0
ELFWS3149	0.00	0.00
	0	0
	0	0
EPCAKRN21	0.00	0.00
	0	0
	0	0
EPCAKRN22	0.00	0.00
	0	0
	0	0
EPCAKRN23	0.00	0.00
	0	0
	0	0
EPCAKRN24	0.00	0.00
	0	0
	0	0
EPCAKRN71	0.00	0.00
	0	0
	0	0
EPCAKRN72	0.00	0.00
	0	0
	0	0
FPT16	0.00	0.00
	0	0
	109	109
FPT17	3.00	3.00
	162	48
	236	176
H3CAINF525	0.98	0.98
	135	88
	0	0
SQF23	0.98	0.98
	50	50
	0	0

	64	94
	0	0
HBCABBD555	0.00	0.00
	0	0
	0	0
HCCABBD557	0.00	0.00
	0	0
	821	821
555	0.00	0.00
	0	0
	0	0
HRCABBD556	0.00	0.00
	0	0
	821	821
HWCABBD555	0.00	0.00
	0	0
	0	0
W2CABBD3191	0.00	0.00
	0	0
	174	174
W2CABBD3191D	0.00	0.00
	56	141
	200	268
W2CABBD3192A	0.00	0.00
	219	73
	330	214
W2CABBD3192B	0.00	0.00
	0	0
	155	155
W2CABBD3192C	0.00	0.00
	176	73
	296	214
W3CABBD3190	0.00	0.00
	0	0
	155	155
WPCAKRN23	0.00	0.00
	0	0
	0	0
WPCAKRN71	0.00	0.00
	0	0
	0	0
RN72	0.00	0.00
	0	0
	0	0


FMZ
B1
B3
B4
B5
FBD
CAL
HIS
PRV
1 11.66 1.00 1.39
2 8.70 1.40 2.12
3 1.95 4.00 12.75
4 1.75 21.00 32.50
5 0.34 35.25 52.00
6 0.80 52.20 53.00
Exit
Fire Behavior Data (FMZ B4 FBD CAL)
Print Form

AAC INPUT TABLE
ANALYSIS ZONE: B4

PER ACRE SUPPRESSION COST
DOLLAR AMOUNTS NOT INFLATED

ACRE IT	$ COST
).3	15567
10.0	1258
100.0	181
200.0	107
1000.0	112
999999.0	29

EFT INPUT TABLE
ANALYSIS ZONE: B4
FBD: CAL

ESCAPED FIRE TABLE

RL	1	2	3	4	5	6
	301	351	401	500	590	900
	326	376	426	550	800	990
	301	351	401	500	600	1460
	326	376	426	550	900	22080

SUPPRESSION TABLE 1 05-24-1998 16:55:49
ADMIN UNIT: 1
ANALYSIS ZONE: B4
FUEL MODEL: T
MAX FIRE SIZE MODELLED: 300 AC W/ TIME LIMIT OF: 24 HRS
OPTION ID: MEL
FBD: CAL

SUMMARY BY INTENSITY LEVEL AND FINAL SIZE OF FIRES
DOLLAR AMOUNTS NOT INFLATED

FIL	# FIRES	ROS CH/HR	REP LOC	FINAL SIZE	FREQ PER YR	EVENT SUPP $	EVENT NVC $
1	11.66	1.00	1	0.08	2.052	2645	-1
			2	0.08	7.276	1603	-1
		1.39	1	0.16	0.513	3819	-3
			2	0.14	1.819	2671	-1
2	8.70	1.40	1	0.15	1.531	3797	-4
			2	0.13	5.429	2443	-2
		2.12	1	0.36	0.383	1860	-10
			2	0.30	1.357	792	-5
3	1.95	4.00	1	1.76	0.343	8491	-170
			2	0.73	1.217	912	-22
		12.75	1	35.79	0.086	16974	-3472
			2	10.81	0.304	2370	-335
4	1.75	21.00	1	272.71	0.308	49126	-23726
			2	34.79	1.092	6711	-1740
		32.50	1	550.00*	0.077	61600	-47850
			2	226.01	0.273	31663	-11301
5	0.34	35.25	1	590.00*	0.060	66080	-63720
			2	258.34	0.212	41263	-16017
		52.00	1	800.00*	0.015	89600	-86400
			2	900.00*	0.053	100800	-55800
6	0.80	52.20	1	900.00*	0.141	100800	-118800
			2	1460.00*	0.499	42340	-108040
		53.00	1	990.00*	0.035	110880	-130680
			2	22080.00*	0.125	640320	-1633920

SUPPRESSION TABLE 2 05-24-1998 17:00:11
ADMIN UNIT: 1
ANALYSIS ZONE: B4
FUEL MODEL: T
MAX FIRE SIZE MODELLED: 300 AC W/ TIME LIMIT OF: 24 HRS
OPTION ID: MEL
FBD: CAL

EXPECTED ANNUAL ACRES BURNED BY FIRE SIZE AND INTENSITY

	0-.25	.26-9.99	10-99.99	100-299.99	300-999.99	1000+ ESC	TOTAL
1	1.06	0.00	0.00	0.00	0.00	0.00	1.06
2	0.94	0.55	0.00	0.00	0.00	0.00	1.49
3	0.00	1.49	6.36	0.00	0.00	0.00	7.84
4	0.00	0.00	37.99	145.70	42.35	0.00	226.04
5	0.00	0.00	0.00	54.81	95.01	0.00	149.82
6	0.00	0.00	0.00	0.00	161.57	3484.42	3645.98
TOTAL	2.01	2.03	44.35	200.50	298.93	3484.42	4032.24
HIST	2.05	5.10	67.00	98.30	298.30	3484.00	3954.75
% DIF	-2	-60	-34	104	0	0	2
CUM %	0.05	0.10	1.20	6.17	13.59	100.00	

SUPPRESSION TABLE 2a
ADMIN UNIT: 1
ANALYSIS ZONE: B4
FUEL MODEL: T
MAX FIRE SIZE MODELLED: 300 AC W/ TIME LIMIT OF: 24 HRS
OPTION ID: MEL
FBD: CAL

FRACTION OF EXPECTED ACRES BURNED FROM EFT

FIL	0-.25	.26-9.99	10-99.99	100-299.99	300-999.99	1000+ ESC	TOTAL
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	1.00	0.00	1.00
5	0.00	0.00	0.00	0.00	1.00	0.00	1.00
	0.00	0.00	0.00	0.00	1.00	1.00	1.00
	0.00	0.00	0.00	0.00	1.00	1.00	1.00

SUPPRESSION TABLE 3 05-24-1998 17:01:53
ADMIN UNIT: 1
ANALYSIS ZONE: B4
FUEL MODEL: T
MAX FIRE SIZE MODELLED: 300 AC W/ TIME LIMIT OF: 24 HRS
OPTION ID: MEL
FBD: CAL

EXPECTED ANNUAL NUMBER OF FIRES BY SIZE AND INTENSITY

FIL	0-.25	.26-9.99	10-99.99	100-299.99	300-999.99	1000+ ESC	TOTAL
1	11.66	0.00	0.00	0.00	0.00	0.00	11.66
2	6.96	1.74	0.00	0.00	0.00	0.00	8.70
3	0.00	1.56	0.39	0.00	0.00	0.00	1.95
4	0.00	0.00	1.09	0.58	0.08	0.00	1.75
5	0.00	0.00	0.00	0.21	0.13	0.00	0.34
6	0.00	0.00	0.00	0.00	0.18	0.62	0.80
TOTAL	18.62	3.30	1.48	0.79	0.38	0.62	25.20
HIST	18.70	3.50	1.50	0.50	0.40	0.60	25.20
% DIF	0	-6	-1	58	-5	3	0
CUM %	73.89	86.98	92.87	96.01	97.52	100.00	

SUPPRESSION TABLE 4 05-24-1998 16:57:28
ADMIN UNIT: 1
ANALYSIS ZONE: B4
FUEL MODEL: T
MAX FIRE SIZE MODELLED: 300 AC W/ TIME LIMIT OF: 24 HRS
OPTION ID: MEL
FBD: CAL

SUMMARY OF ANNUAL FIRE VALUES BY REP. LOCATION

LOC	FREQ	ACRES	EM SUPP COST	NVC	SUPP + NVC
1	5.54	339.48	65270	-40080	105351
2	19.66	3692.76	173719	-285637	459357
TOTAL	25.20	4032.24	238991	-325718	564708

SUPPRESSION TABLE 4a 05-24-1998 16:57:28
ADMIN UNIT: 1
ANALYSIS ZONE: B4
FUEL MODEL: T
MAX FIRE SIZE MODELLED: 300 AC W/ TIME LIMIT OF: 24 HRS
OPTION ID: MEL
FBD: CAL

NET VALUE CHANGE SUMMARY
(ALL VALUES ARE IN WHOLE DOLLARS)

RL	TIMBER	FORAGE	WTR USE	WTR STR	FISH	WILD	REC	IMPROVE	TOTAL
1	0	-914	0	0	-2134	-30344	-6271	-418	-40080
2	0	-6564	0	0	-14441	-218985	-40396	-5251	-285637
SUM	0	-7478	0	0	-16575	-249329	-46667	-5669	-325718

SUPPRESSION TABLE 5 05-24-1998 14:21:54
ADMIN UNIT: 1
ANALYSIS ZONE: B4
FUEL MODEL: T
MAX FIRE SIZE MODELLED: 300 AC W/ TIME LIMIT OF: 24 HRS
OPTION ID: MEL
FBD: CAL

DISPATCH SUMMARY
(EXPECTED ANNUAL NUMBER OF MISSIONS)

UNIT ID	1	2	3	4	5	6	TOTAL DISP
A1NVCCD65	0.00	0.00	0.43	0.38	0.34	0.80	1.95
H3CATOY	0.00	1.91	0.43	0.38	0.34	0.80	3.87
A2NVCCD60	0.00	0.00	0.00	1.37	0.34	0.80	2.51
E3CABBD3132B	2.57	1.91	0.43	1.75	0.34	0.18	7.17
E3CABBD3131B	2.57	1.91	0.43	1.75	0.34	0.18	7.17
ELCATOY7233	0.00	0.00	0.00	0.00	0.07	0.18	0.25
ELCATOY7232	0.00	0.00	0.43	0.38	0.07	0.18	1.06
ELCAINF11	0.00	0.00	0.43	0.38	0.07	0.18	1.06
E6CABBD3141	0.00	0.00	0.43	0.38	0.07	0.00	0.89
ELCATOY7231	0.00	0.00	0.43	0.38	0.07	0.00	0.89
EHCAINF22	0.00	0.00	0.00	1.37	0.34	0.62	2.33
ELCAINF12	0.00	0.00	0.00	0.00	0.07	0.00	0.07
E6CABBD3140A	9.09	6.79	1.52	1.75	0.27	0.62	20.04
C3CAOVU03	0.00	0.00	0.00	0.00	0.27	0.62	0.89
C3CAOVU01	0.00	0.00	0.00	1.75	0.27	0.62	2.64
EHCAINF32	0.00	0.00	1.52	1.37	0.27	0.62	3.78
EHCAOVU3573	0.00	0.00	1.52	1.37	0.27	0.62	3.78
D2CAOVU43	0.00	0.00	1.52	1.37	0.27	0.62	3.78
EHCAINF31	0.00	6.79	1.52	1.37	0.27	0.62	10.56
H3CAINF525	0.00	0.00	0.00	1.37	0.27	0.62	2.25
TOTAL	14.23	19.31	11.04	18.87	4.61	8.90	76.95

OST INPUT TABLE
ANALYSIS ZONE: B5
OPTION ID: HIS

OPTION SELECTOR TABLE

OPTION	1:HIS Historical
?:	12
A2 F13	54
C1CABBD01	22
C3CASQF04	56
C3CASQF05	33
D1CABBD3180	50
D2CABBD3181	00
D2CABBD3182	30
E3CABBD3130	35
E3CABBD3130A	00
E3CABBD3133	31
E6CABBD3140	00
E6CABBD3140B	00
E6CABBD3143	00
E6CABBD3144	02
E6CABBD3146	11
E6CABBD3146A	00
EHCASQF51	40
EHCASQF61	44
EPCAKRN71	02
EPCAKRN72	40
H3CASQF23	33
HBCABBD555	00
HCCABBD557	22
HLCABBD555	00
HRCABBD556	00
HWCABBD555	22
W2CABBD3191	12
W3CABBD3190	55
WPCAKRN71	03
WPCAKRN72	40

MRT INPUT TABLE
ANALYSIS ZONE: B5

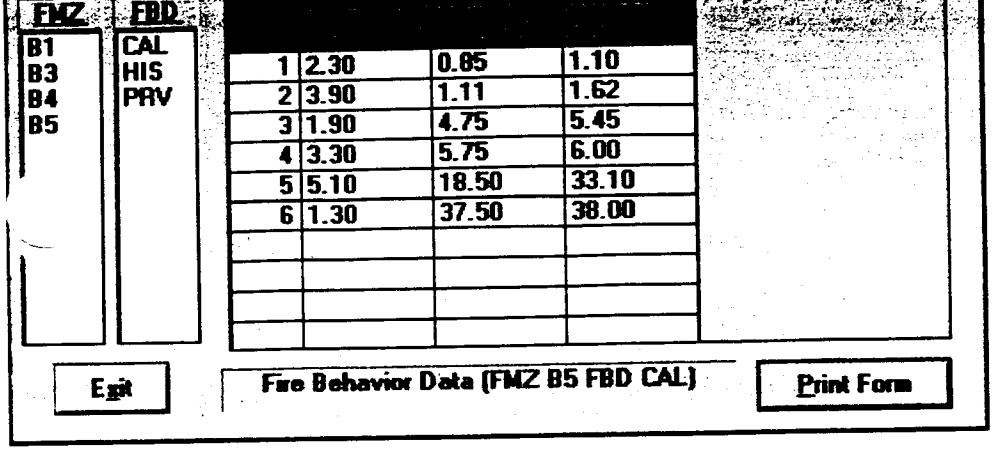
MASTER RESOURCE TABLE
DOLLAR AMOUNTS NOT INFLATED

UNIT ID	1	2	3	4	5	6	7	8	9	10	11	12
D65	0.00	0.00										
	0	0										
	0	0										
A2CASQF13	15.00	15.00										
	67	67										
	3600	3600										
A2NVCCD60	0.00	0.00										
	0	0										
	0	0										
A3CASLU03	0.00	0.00										
	0	0										
	0	0										
A3CATUU69	12.00	12.00										
	70	70										
	1602	1602										
C1CABBD01	6.00	6.00										
	90	145										
	1738	1788										
C3CAOVU01	0.00	0.00										
	0	0										
	0	0										
C3CAOVU02	0.00	0.00										
	0	0										
	0	0										
C3CAOVU03	0.00	0.00										
	0	0										
	0	0										
C3CAOVU04	0.00	0.00										
	0	0										
	0	0										
C3CASLU01	0.00	0.00										
	0	0										
	0	0										
C3CASLU02	0.00	0.00										
	0	0										
	0	0										
C3CASLU03	0.00	0.00										
	0	0										
	0	0										
C3CASQF04	4.50	4.50										
	210	265										
	0	0										
C3CASQF05	4.50	0.00										
	135	0										
	0	0										
D1CABBD3180	30.00	0.00										
	100	0										
	365	411										
D2CABBD3181	15.00	0.00										
	100	0										
	365	411										
D2CABBD3182	15.00	0.00										
	78	0										
	331	365										
D2CAKRN01	7.50	0.00										
	100	0										
	0	0										
D2CAKRN02	7.50	0.00										
	100	0										
	0	0										
D2CAOVU43	0.00	0.00										
	0	0										
	0	0										
E3CABBD3130	40.00	3.50										
	90	145										
	633	655										
E3CABBD3130A	40.00	0.00										
	150	0										
	491	491										
BBD3131	0.00	0.00										

	569	569
E3CABBD3131A	0.00	0.00
	0	0
	569	569
E3CABBD3131B	0.00	0.00
	0	0
	569	569
`BD3131D	0.00	0.00
	0	0
	569	569
D3132	0.00	0.00
	0	0
	569	569
E3CABBD3132A	0.00	0.00
	0	0
	569	569
E3CABBD3132B	0.00	0.00
	0	0
	569	569
E3CABBD3133	40.00	3.50
	82	85
	706	690
E3CABBD3134	0.00	0.00
	0	0
	569	569
E3CABBD3135	0.00	0.00
	0	0
	569	569
E4CASLU42	0.00	0.00
	0	0
	0	0
E6CABBD3140	15.00	2.10
	90	145
	434	460
E6CABBD3140A	0.00	0.00
	0	0
	330	330
E6CABBD3140B	15.00	0.00
	150	0
	487	330
E6CABBD3141	0.00	0.00
	0	0
	330	330
D3142	0.00	0.00
	0	0
	330	330
E6CABBD3142A	0.00	0.00
	0	0
	330	330
E6CABBD3142B	0.00	0.00
	0	0
	330	330
E6CABBD3143	15.00	2.10
	68	115
	414	434
E6CABBD3144	15.00	2.10
	90	100
	434	420
E6CABBD3145	15.00	2.10
	90	100
	434	420
E6CABBD3146	15.00	2.10
	82	85
	427	407
E6CABBD3146A	15.00	2.10
	82	85
	427	407
E6CABBD3147	0.00	0.00
	0	0
	330	330
EHCACDD3634	0.00	0.00
	0	0
	0	0
EHCAINF21	0.00	0.00
	0	0
	0	0
NF22	0.00	0.00
	0	0

EHCAINF31	0.00	0.00
	0	0
	0	0
EHCAINF32	0.00	0.00
	0	0
	0	0
EHCAINF41	0.00	0.00
	0	0
	0	0
J3573	0.00	0.00
	0	0
	0	0
EHCASLU41	0.00	0.00
	0	0
	0	0
EHCASQF51	30.00	1.05
	72	127
	0	0
EHCASQF52	30.00	0.00
	65	0
	0	0
EHCASQF53	30.00	1.05
	65	120
	0	0
EHCASQF61	30.00	1.05
	72	120
	0	0
ELCAINF11	0.00	0.00
	0	0
	0	0
ELCAINF12	0.00	0.00
	0	0
	0	0
ELCASQF65	0.00	0.00
	0	0
	0	0
ELCATOY7231	0.00	0.00
	0	0
	0	0
ELCATOY7232	0.00	0.00
	0	0
	0	0
OY7233	0.00	0.00
	0	0
	0	0
ELFWS3149	0.00	0.00
	0	0
	0	0
EPCAKRN21	0.00	0.00
	0	0
	0	0
EPCAKRN22	0.00	0.00
	0	0
	0	0
EPCAKRN23	0.00	0.00
	0	0
	0	0
EPCAKRN24	0.00	0.00
	0	0
	0	0
EPCAKRN71	5.00	5.00
	65	80
	0	0
EPCAKRN72	5.00	5.00
	58	80
	0	0
FPT16	0.70	0.70
	48	68
	176	187
FPT17	0.00	0.00
	0	0
	109	109
H3CAINF525	0.00	0.00
	0	0
	0	0
ASQF23	0.98	0.98
	50	50
	0	0

	0	0
	0	0
HBCABBD555	3.00	3.00
	71	65
	490	350
HCCABBD557	4.00	4.00
	66	85
	971	971
?D555	1.00	1.00
	64	59
	500	400
HRCABBD556	4.00	4.00
	51	45
	1021	1021
HWCABBD555	3.00	3.00
	86	80
	490	350
W2CABBD3191	0.00	0.00
	73	99
	233	253
W2CABBD3191D	0.00	0.00
	0	0
	155	155
W2CABBD3192A	0.00	0.00
	0	0
	155	155
W2CABBD3192B	0.00	0.00
	0	0
	155	155
W2CABBD3192C	0.00	0.00
	0	0
	155	155
W3CABBD3190	0.00	0.00
	90	120
	208	222
WPCAKRN23	0.00	0.00
	0	0
	0	0
WPCAKRN71	0.00	0.00
	65	80
	0	0
AKRN72	0.00	0.00
	58	80
	0	0


FMZ
FBD
B1
B3
B4
B5
CAL
HIS
PRV
1 2.30 0.85 1.10
2 3.90 1.11 1.62
3 1.90 4.75 5.45
4 3.30 5.75 6.00
5 5.10 18.50 33.10
6 1.30 37.50 38.00
Exit
Fire Behavior Data (FMZ B5 FBD CAL)
Print Form

AAC INPUT TABLE
ANALYSIS ZONE: B5

PER ACRE SUPPRESSION COST
DOLLAR AMOUNTS NOT INFLATED

ACRE 'IT	$ COST
.3	8526
.0	1320
100.0	238
250.0	171
1000.0	118
999999.0	26

AAC INPUT TABLE
ANALYSIS ZONE: B5

PER ACRE SUPPRESSION COST
DOLLAR AMOUNTS NOT INFLATED

ACRE 'IT	$ COST
.3	8526
.0	1320
100.0	238
250.0	171
1000.0	118
999999.0	26

EFT INPUT TABLE
ANALYSIS ZONE: B5
FBD: CAL

ESCAPED FIRE TABLE

RI	1	2	3	4	5	6
	301	353	405	457	509	530
	327	379	431	483	520	12400
2	301	519	737	955	1173	4550
	410	628	846	1064	1500	12400

SUPPRESSION TABLE 1 05-24-1998 16:55:50
ADMIN UNIT: 1
ANALYSIS ZONE: B5
FUEL MODEL: F
MAX FIRE SIZE MODELLED: 300 AC W/ TIME LIMIT OF: 24 HRS
OPTION ID: MEL
FBD: CAL

SUMMARY BY INTENSITY LEVEL AND FINAL SIZE OF FIRES
DOLLAR AMOUNTS NOT INFLATED

FIL	# FIRES	ROS CH/HR	REP LOC	FINAL SIZE	FREQ PER YR	EVENT SUPP $	EVENT NVC $
1	2.30	0.85	1	0.06	1.656	1162	-1
			2	0.16	0.184	2500	-5
		1.10	1	0.10	0.414	1935	-2
			2	0.36	0.046	1573	-10
2	3.90	1.11	1	0.08	2.808	2604	-2
			2	0.07	0.312	1955	-3
		1.62	1	0.16	0.702	3311	-5
			2	0.17	0.078	2900	-8
3	1.90	4.75	1	1.83	1.368	6039	-95
			2	2.73	0.152	7018	-207
		5.45	1	2.46	0.342	6874	-128
			2	4.30	0.038	9164	-327
4	3.30	5.75	1	2.32	2.376	5551	-181
			2	5.47	0.264	14746	-635
		6.00	1	2.53	0.594	5822	-197
			2	6.15	0.066	15713	-713
5	5.10	18.50	1	34.44	3.672	18068	-3031
			2	1173.00*	0.408	30498	-156009
		33.10	1	172.24	0.918	39759	-15157
			2	1500.00*	0.102	39000	-199500
6	1.30	37.50	1	271.56	0.936	42420	-27428
			2	4550.00*	0.104	118300	-709800
		38.00	1	283.06	0.234	43777	-28589
			2	12400.00*	0.026	322400	-1934400

SUPPRESSION TABLE 2 05-24-1998 17:00:13
ADMIN UNIT: 1
ANALYSIS ZONE: B5
FUEL MODEL: F
MAX FIRE SIZE MODELLED: 300 AC W/ TIME LIMIT OF: 24 HRS
OPTION ID: MEL
FBD: CAL

EXPECTED ANNUAL ACRES BURNED BY FIRE SIZE AND INTENSITY

FIL	0-.25	.26-9.99	10-99.99	100-299.99	300-999.99	1000+ ESC	TOTAL
1	0.17	0.02	0.00	0.00	0.00	0.00	0.19
2	0.37	0.00	0.00	0.00	0.00	0.00	0.37
3	0.00	3.93	0.00	0.00	0.00	0.00	3.93
4	0.00	8.86	0.00	0.00	0.00	0.00	8.86
5	0.00	0.00	126.48	158.12	0.00	631.58	916.18
6	0.00	0.00	0.00	320.42	0.00	795.60	1116.02
TOTAL	0.55	12.81	126.48	478.54	0.00	1427.18	2045.55
HIST	0.75	14.13	137.60	172.60	498.30	4328.10	5151.48
% DIF	-27	-9	-8	177	-100	-67	-60
CUM %	0.03	0.65	6.84	30.23	30.23	100.00	

SUPPRESSION TABLE 2a
ADMIN UNIT: 1
ANALYSIS ZONE: B5
FUEL MODEL: F
MAX FIRE SIZE MODELLED: 300 AC W/ TIME LIMIT OF: 24 HRS
OPTION ID: MEL
FBD: CAL

FRACTION OF EXPECTED ACRES BURNED FROM EFT

FIL	0-.25	.26-9.99	10-99.99	100-299.99	300-999.99	1000+ ESC	TOTAL
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	1.00	1.00
6	0.00	0.00	0.00	0.00	0.00	1.00	1.00
L	0.00	0.00	0.00	0.00	0.00	1.00	1.00

SUPPRESSION TABLE 3 05-24-1998 17:01:54
ADMIN UNIT: 1
ANALYSIS ZONE: B5
FUEL MODEL: F
MAX FIRE SIZE MODELLED: 300 AC W/ TIME LIMIT OF: 24 HRS
OPTION ID: MEL
FRD: CAL

EXPECTED ANNUAL NUMBER OF FIRES BY SIZE AND INTENSITY

	0-.25	.26-9.99	10-99.99	100-299.99	300-999.99	1000+ ESC	TOTAL
1	2.25	0.05	0.00	0.00	0.00	0.00	2.30
2	3.90	0.00	0.00	0.00	0.00	0.00	3.90
3	0.00	1.90	0.00	0.00	0.00	0.00	1.90
4	0.00	3.30	0.00	0.00	0.00	0.00	3.30
5	0.00	0.00	3.67	0.92	0.00	0.51	5.10
6	0.00	0.00	0.00	1.17	0.00	0.13	1.30
TOTAL	6.15	5.25	3.67	2.09	0.00	0.64	17.80
HIST	6.10	5.50	3.40	1.00	0.90	0.90	17.80
% DIF	1	-5	8	109	-100	-29	0
CUM %	34.57	64.04	84.67	96.40	96.40	100.00	

SUPPRESSION TABLE 4 05-24-1998 16:57:30
ADMIN UNIT: 1
ANALYSIS ZONE: B5
FUEL MODEL: F
MAX FIRE SIZE MODELLED: 300 AC W/ TIME LIMIT OF: 24 HRS
OPTION ID: MEL
FBD: CAL

SUMMARY OF ANNUAL FIRE VALUES BY REP. LOCATION

RL LOC	FREQ	ACRES	EM SUPP COST	NVC	SUPP + NVC
1	16.02	615.85	204053	-61656	265709
2	1.78	1429.69	47531	-220980	268511
TOTAL	17.80	2045.55	251585	-282636	534220

SUPPRESSION TABLE 4a 05-24-1998 16:57:30
ADMIN UNIT: 1
ANALYSIS ZONE: B5
FUEL MODEL: F
MAX FIRE SIZE MODELLED: 300 AC W/ TIME LIMIT OF: 24 HRS
OPTION ID: MEL
FBD: CAL

NET VALUE CHANGE SUMMARY
(ALL VALUES ARE IN WHOLE DOLLARS)

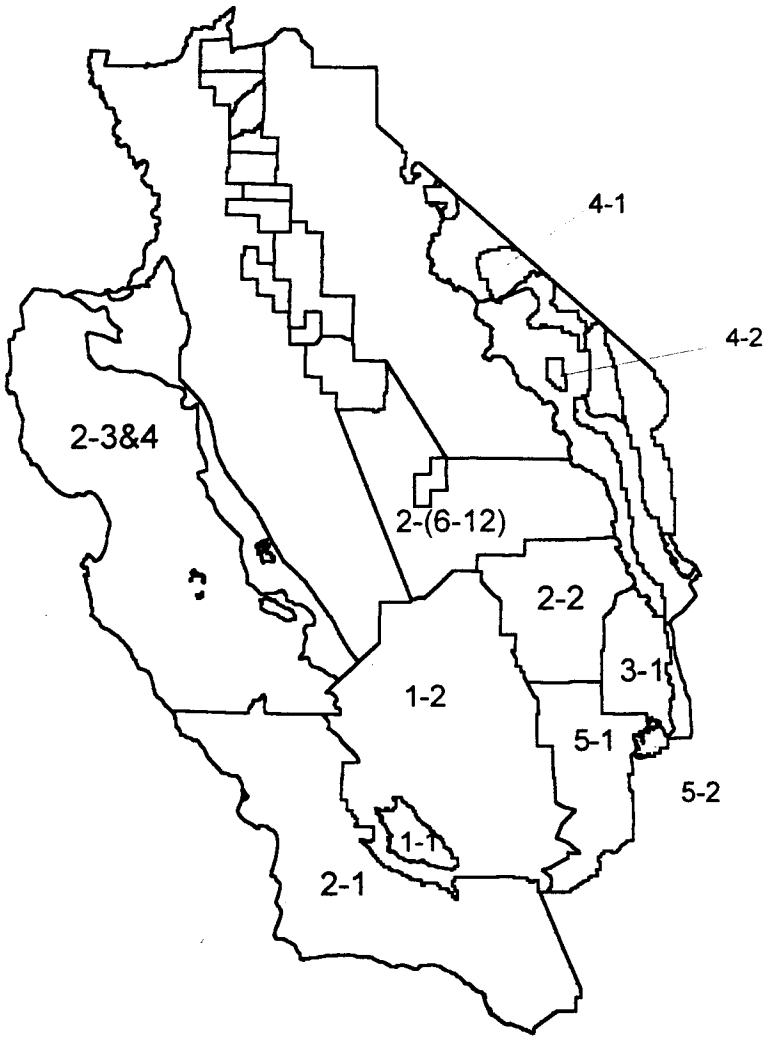
RL	TIMBER	FORAGE	WTR USE	WTR STR	FISH	WILD	REC	IMPROVE	TOTAL
1	0	-525	0	-5861	0	-45456	-9009	-804	-61656
2	0	-2486	0	-13649	-24917	-153056	-24983	-1889	-220980
SUM	0	-3011	0	-19510	-24917	-198512	-33991	-2693	-282636

SUPPRESSION TABLE 5 05-24-1998 14:23:34
ADMIN UNIT: 1
ANALYSIS ZONE: B5
FUEL MODEL: F
MAX FIRE SIZE MODELLED: 300 AC W/ TIME LIMIT OF: 24 HRS
OPTION ID: MEL
FBD: CAL

DISPATCH SUMMARY
(EXPECTED ANNUAL NUMBER OF MISSIONS)

UNIT ID	1	2	3	4	5	6	TOTAL DISP
H3CASQF23	0.00	0.00	1.90	3.30	5.10	1.30	11.60
HRCABBD556	0.00	3.90	1.90	3.30	5.10	1.30	15.50
WPCAKRN72	0.00	0.00	0.00	2.97	4.59	1.17	8.73
EPCAKRN72	0.00	0.00	0.00	2.97	4.59	1.17	8.73
A2CASQF13	0.00	0.00	0.00	0.33	5.10	1.30	6.73
E6CABBD3143	2.07	3.51	1.71	3.30	5.10	1.30	16.99
HBCABBD555	0.00	3.90	1.90	3.30	5.10	1.30	15.50
EHCASQF61	0.00	0.00	0.00	3.30	5.10	1.30	9.70
EHCASQF51	0.00	0.00	0.00	2.97	4.59	1.17	8.73
W2CABBD3191	2.07	0.00	1.90	3.30	5.10	1.30	13.67
D2CABBD3182	0.00	0.00	1.71	2.97	4.59	1.17	10.44
E6CABBD3146	2.30	0.00	1.90	0.33	5.10	1.30	10.93
E3CABBD3133	0.23	0.00	1.90	0.33	5.10	1.30	8.86
W3CABBD3190	0.00	0.00	0.00	0.00	5.10	1.30	6.40
E3CABBD3130	0.00	0.00	0.00	0.00	5.10	1.17	6.27
C1CABBD01	0.00	0.00	0.00	0.00	5.10	1.17	6.27
D1CABBD3180	0.00	0.00	0.00	0.00	4.59	1.17	5.76
EPCAKRN71	0.00	0.00	0.19	0.33	0.51	0.13	1.16
WPCAKRN71	0.00	0.00	0.19	0.33	0.51	0.13	1.16
E6CABBD3144	0.00	0.00	0.19	0.33	0.51	0.13	1.16
TOTAL	6.67	11.31	15.39	33.66	85.68	21.58	174.29

Central California Region FMZ Map



B1
B2
B3
B4
B5

5/27/98

N
W
E
S

XIII Map

XIII Map

Net Value Change

The development of the Net Value Changes that would occur were developed in coordination with resource staff. The cost structures for different categories are lslted below. All values used represent the best available information.

Use outputs were by area. The figures were taken from both the Resource Management Plans for Caliente and Bishop areas, and in discussions with recreation personnel at both the Bakersfield Field office and Bishop Office. It is believed that the values used represent very nominal estimates. This area of the fire planning process is very difficult to adequately represent unless commodities are closely monitored, and probably represent a high degree of subjectivty.

1. Forage: Values were developed and given to each F.O. in the amount of $10.10. Acreage was determined from the RMP, along with total AUM's.

2. Game: Values were developed from Investment Analysis documentation developed in 1991 by DOI. These figures were also compared to the resource valuation plan used by the forest service. The figures were inflated to 1998 dollars based on the inflation adjustments that are part of the IIAA database.

3. Improvements: Values were developed using burned acreage and improvement costs for those acres. Nominal figures were derived for each FIL.

4. Soils: Previous planning efforts used soil values for the areas known as B3, and B5. Current figures were developed using work done on the SQF, and the simplifications provided by Brian B.

ANALYSIS ZONE: B1

NVC PER ACRE INPUT TABLE
DOLLAR AMOUNTS NOT INFLATED

TABLE: 1A FOR REP LOCATION(S): 1 2

RESOURCE	1	2	3	4	5	6
re Timber	0.00	0.00	0.00	0.00	0.00	0.00
ure Poles	0.00	0.00	0.00	0.00	0.00	0.00
ire S/Sap	0.00	0.00	0.00	0.00	0.00	0.00
ge	-0.37	-0.37	-0.37	-1.18	-1.18	-1.18
Water	0.00	0.00	0.00	0.00	0.00	0.00
Soils	0.00	0.00	0.00	0.00	0.00	0.00
Fish Wm/Cd Wtr	0.00	0.00	0.00	0.00	0.00	0.00
Fish Anad Sprt	0.00	0.00	0.00	0.00	0.00	0.00
Fish Commercl	0.00	0.00	0.00	0.00	0.00	0.00
Wildlife Big Gm	-1.78	-3.56	-7.11	-10.67	-14.22	-14.22
Wildlife Other	-4.58	-9.15	-18.04	-27.19	-36.62	-36.62
Rec Disp/Dev	-0.43	-0.86	-1.73	-2.64	-3.46	-3.46
Rec Wildernesss	0.00	0.00	0.00	0.00	0.00	0.00
Improvements	0.00	-0.10	-0.47	-0.94	-1.09	-1.37
TOTAL	-7.16	-14.04	-27.72	-42.62	-56.57	-56.85

ANALYSIS ZONE: B3

NVC PER ACRE INPUT TABLE
DOLLAR AMOUNTS NOT INFLATED

TABLE: 3A FOR REP LOCATION(S): 1

RESOURCE	1	2	3	4	5	6
ire Timber	0.00	0.00	0.00	0.00	0.00	0.00
ire Poles	0.00	0.00	0.00	0.00	0.00	0.00
ire S/Sap	0.00	0.00	0.00	0.00	0.00	0.00
ge	-0.08	-0.08	-0.58	-0.58	-1.16	-1.16
Water	0.00	0.00	0.00	0.00	0.00	0.00
Soils	-3.00	-4.00	-7.00	-7.00	-9.00	-9.00
Fish Wm/Cd Wtr	0.00	0.00	0.00	0.00	0.00	0.00
Fish Anad Sprt	0.00	0.00	0.00	0.00	0.00	0.00
Fish Commercl	0.00	0.00	0.00	0.00	0.00	0.00
Wildlife Big Gm	-4.92	-4.92	-15.04	-29.81	-49.78	-59.63
Wildlife Other	-22.95	-38.11	-61.06	-91.40	-91.40	-106.56
Rec Disp/Dev	-1.59	-1.59	-4.73	-9.45	-15.72	-18.90
Rec Wildernesss	0.00	0.00	0.00	0.00	0.00	0.00
Improvements	0.00	-0.10	-0.47	-0.94	-1.09	-1.37
TOTAL	-32.54	-48.80	-88.88	-139.18	-168.15	-196.62

ANALYSIS ZONE: B4

NVC PER ACRE INPUT TABLE
DOLLAR AMOUNTS NOT INFLATED

TABLE: 4A FOR REP LOCATION(S): 1

RESOURCE	1	2	3	4	5	6
re Timber	0.00	0.00	0.00	0.00	0.00	0.00
ire Poles	0.00	0.00	0.00	0.00	0.00	0.00
ire S/Sap	0.00	0.00	0.00	0.00	0.00	0.00
ge	-0.25	-0.25	-1.70	-1.70	-3.06	-3.06
Water	0.00	0.00	0.00	0.00	0.00	0.00
Soils	0.00	0.00	0.00	0.00	0.00	0.00
Fish Wm/Cd Wtr	0.00	0.00	0.00	0.00	0.00	0.00
Fish Anad Sprt	0.00	0.00	-0.47	-2.19	-6.58	-8.78
Fish Commercl	0.00	0.00	0.00	0.00	0.00	0.00
Wildlife Big Gm	-2.46	-2.46	-48.78	-15.59	-25.85	-31.18
Wildlife Other	-13.76	-22.74	-37.10	-55.05	-55.05	-64.62
Rec Disp/Dev	-1.64	-1.64	-8.09	-11.36	-16.17	-22.72
Rec Wildernesss	0.00	0.00	0.00	0.00	0.00	0.00
Improvements	0.00	-0.10	-0.47	-0.94	-1.09	-1.37
TOTAL	-18.11	-27.19	-96.61	-86.83	-107.80	-131.73

TABLE: 4B FOR REP LOCATION(S): 2

RESOURCE	1	2	3	4	5	6
Mature Timber	0.00	0.00	0.00	0.00	0.00	0.00
Immature Poles	0.00	0.00	0.00	0.00	0.00	0.00
Immature S/Sap	0.00	0.00	0.00	0.00	0.00	0.00
Forage	-0.15	-0.15	-0.89	-0.89	-1.71	-1.71
Water	0.00	0.00	0.00	0.00	0.00	0.00
Soils	0.00	0.00	0.00	0.00	0.00	0.00
Fish Wm/Cd Wtr	0.00	0.00	0.00	0.00	0.00	0.00
Fish Anad Sprt	0.00	0.00	-0.20	-0.96	-2.87	-3.82
Fish Commercl	0.00	0.00	0.00	0.00	0.00	0.00
Wildlife Big Gm	-1.60	-1.60	-5.11	-9.89	-16.59	-20.10
Wildlife Other	-7.96	-12.98	-20.94	-31.83	-31.83	-36.86
Rec Disp/Dev	-0.76	-0.76	-3.75	-5.28	-7.57	-10.62
Rec Wildernesss	0.00	0.00	0.00	0.00	0.00	0.00
Improvements	0.00	-0.10	-0.47	-0.94	-1.09	-1.37
TOTAL	-10.47	-15.59	-31.36	-49.79	-61.66	-74.48

ANALYSIS ZONE: B5

NVC PER ACRE INPUT TABLE
DOLLAR AMOUNTS NOT INFLATED

TABLE: 5A FOR REP LOCATION(S): 1

RESOURCE	1	2	3	4	5	6
ıre Timber	0.00	0.00	0.00	0.00	0.00	0.00
·ure Poles	0.00	0.00	0.00	0.00	0.00	0.00
ure S/Sap	0.00	0.00	0.00	0.00	0.00	0.00
ge	-0.07	-0.07	-0.44	-0.44	-0.81	-0.81
Water	0.00	0.00	0.00	0.00	0.00	0.00
Soils	-3.00	-4.00	-7.00	-7.00	-9.00	-9.00
Fish Wm/Cd Wtr	0.00	0.00	0.00	0.00	0.00	0.00
Fish Anad Sprt	0.00	0.00	0.00	0.00	0.00	0.00
Fish Commercl	0.00	0.00	0.00	0.00	0.00	0.00
Wildlife Big Gm	-1.82	-1.82	-5.58	-11.28	-18.69	-22.45
Wildlife Other	-11.31	-18.85	-30.16	-45.23	-45.23	-52.77
Rec Disp/Dev	-3.19	-5.29	-8.48	-12.70	-12.70	-14.83
Rec Wildernesss	0.00	0.00	0.00	0.00	0.00	0.00
Improvements	0.00	-0.10	-0.47	-0.94	-1.09	-1.37
TOTAL	-19.39	-30.13	-52.13	-77.59	-87.52	-101.23

TABLE: 5B FOR REP LOCATION(S): 2

RESOURCE	1	2	3	4	5	6
Mature Timber	0.00	0.00	0.00	0.00	0.00	0.00
Immature Poles	0.00	0.00	0.00	0.00	0.00	0.00
Immature S/Sap	0.00	0.00	0.00	0.00	0.00	0.00
Forage	-0.13	-0.13	-0.88	-0.88	-1.64	-1.64
Water	0.00	0.00	0.00	0.00	0.00	0.00
Soils	-3.00	-4.00	-7.00	-7.00	-9.00	-9.00
Fish Wm/Cd Wtr	0.00	0.00	0.00	0.00	0.00	0.00
Fish Anad Sprt	-2.22	-2.22	-4.54	-9.19	-13.85	-18.50
Fish Commercl	0.00	0.00	0.00	0.00	0.00	0.00
Wildlife Big Gm	-2.19	-2.19	-6.56	-12.95	-21.70	-26.07
Wildlife Other	-17.65	-29.32	-46.97	-70.30	-70.30	-81.97
Rec Disp/Dev	-3.77	-6.27	-10.04	-15.08	-15.08	-17.58
Rec Wildernesss	0.00	0.00	0.00	0.00	0.00	0.00
Improvements	0.00	-0.10	-0.47	-0.94	-1.09	-1.37
`L	-28.96	-44.23	-76.46	-116.34	-132.66	-156.13

P21 NS2 with H2 replaced with H3
P22 NS2 with No Bako Dozer, 3130, 3133, 3134
P23 P22 with No Water Tender @ Bako
P24 P19 with additional Water Tender @ Bishop, and Dozer @ Bakersfield
P25 NS2 Replace Topaz Light with Heavy
P26 NS2 move Heavy to Bishop
P27 NS2 C1 propositioned @ Kernville (Possible Fuels Work Positioning)
P28 NS2 with 3130 @ MU Ranch (Possible Project Work Positioning)

The following options represent subtle changes in the previous options, targeted at a budget amount of either plus ten, minus ten, minus twenty, or minus thirty percent of MEL.

10M Type 3 and WT @ Bishop
11M Type 4 @ Polline and Type3 @ Bishop
12M Type 4 @ Bakersfield, Polline, and WT @ Bishop
13M Type 4 @ MU, Type 3 @ Bishop, Replace Topaz, and WT Bishop
14M 11M plus WT @ Bishop
15M Type 4 @ MU, Polline and WT @ Bishop

M10 Type 4 @ Chimney, Topaz only
M11 Type 4 @ Kndy, Topaz only
M12 Type 4 @ MU, Kernville only
M13 Type 4 @ South Fork, Carrizo only
M15 Type 4 @ Polline, Chimney with H3

M20 P22 with Kndy @ South Fork, No WT Carrizo
M21 3130 @ MU, No 3180, 3133, 3134, Kndy, 3149, WT Carrizo

M30 H3, No 3180, 3130, 3133, 3134, Polline, Kndy
M31 M30 with H2, no WT @ Carrizo, Bakersfield
M32 No Heli, 3180, 3130, 3133, 3134, Polline

Program Options

The following options were used in the determination of LCL and MEL. Options were developed with realistic reductions and/or additions to the current program (R98). NS2, NS1 represent options a new base location at either Polline or Crowley in the Bishop Area. These were run with the understanding that the two existing stations would be consolidated into a single station as a solution to repairing two sites..
All options utilize the philosophy described in NFMAS literature for reductions in agency equipment. Namely, reductions in agency equipment were followed by "equal" reductions of cooperator equipment. This artificially simulates the reduced availability that would occur due to such things as increased workload felt, or would occur because of similar budget reductions of our cooperators.

**Options were run, however, they were not considered realistic.

R98 '98 program with Repel Crew-represents the current option
B98 '98 program with Helicopter Crew
R97 '97 program with Repel Crew
B97 '97 program with Helicopter Crew
HIS Historical program represents the most logical program in place over the historical FBD period.
NS1 New Station @ Crowly
NS2 New Station @ Polline
N2L NS2 with additional Light @Bishop
P01 No Helicopter program**
P02 No 3130
P03 No 3149
P04 No 3190,3190
P05 No Crew, Air Tankers**
P06 No Crew, Air Tankers, Helicopters**
P07 No BLM, single cooperator to each FMZ
P08 No 3145, 3146, 3147
P09 No 3130, 3133, 3134
P10 R98 with additional Light Engine @ Kernville
P11 R98 with additional Light Engine @ Bakersfield
P12 R98 with additional Water Tender @ Bishop
P13 R98 with additional Light Engine @ Bakersfield, and Water Tender @ Bishop
P14 R98 with additional Light Engine and Water Tender @ Bishop
P15 No 3130 only
P16 No Helicopter 555 only
P17 P11 with No Helicopter only
P19 NS2 with Light Engine moved to Bishop
P20 R98 with H2 replaced with H3

FBD: CAL

OPT	Budget	Supp	NVC	C+NVC	Acres
P21	2,950,039	879,972	1,503,846	5,333,857	21,691.15
MEL	2,999,882	863,338	1,495,844	5,359,064	21,546.81
P19	2,999,882	863,338	1,495,844	5,359,064	21,546.81
P26	2,999,882	866,251	1,501,769	5,367,902	21,606.45
P16	2,548,381	980,818	1,838,979	5,368,178	24,815.49
NS1	2,999,882	877,936	1,498,125	5,375,943	21,542.99
P11	2,999,882	892,420	1,494,977	5,387,279	21,437.21
P17	2,608,760	972,130	1,806,578	5,387,468	24,410.82
NS2	2,999,882	892,930	1,495,180	5,387,992	21,543.57
N2L	3,060,261	862,166	1,494,551	5,416,978	21,531.89
P25	3,042,990	890,889	1,493,743	5,427,622	21,528.00
P10	3,060,261	881,474	1,489,875	5,431,610	21,386.49
P13	3,051,151	892,516	1,494,850	5,438,517	21,435.06
P24	3,135,569	858,410	1,484,567	5,478,546	21,339.75
13M	3,255,272	847,778	1,482,136	5,585,186	21,243.29
10M	3,236,203	869,019	1,483,591	5,588,813	21,324.16
M12	2,683,108	1,063,602	1,844,014	5,590,724	24,926.94
11M	3,245,313	868,049	1,482,773	5,596,135	21,316.51
M13	2,683,108	1,083,518	1,849,301	5,615,927	25,053.70
M10	2,683,108	1,062,309	1,877,172	5,622,589	25,640.97
M11	2,683,108	1,080,573	1,877,736	5,641,417	25,648.72
14M	3,296,582	867,977	1,482,582	5,647,141	21,313.28
P04	2,817,895	987,348	1,883,922	5,689,165	25,827.09
P15	2,852,396	986,577	1,850,727	5,689,700	25,082.44
R97	2,872,974	967,221	1,855,671	5,695,866	25,217.35
P08	2,781,829	1,046,255	1,878,348	5,706,432	25,622.19
P02	2,852,396	990,591	1,871,213	5,714,200	25,537.35
B97	2,886,369	981,561	1,858,264	5,726,194	25,263.07
P09	2,668,885	1,095,095	1,972,542	5,736,522	27,917.27
R98	2,939,503	971,976	1,830,183	5,741,662	24,648.79
P28	2,999,882	929,604	1,820,774	5,750,260	24,451.83
P03	2,924,623	1,000,990	1,848,818	5,774,431	25,099.64
B98	2,952,898	989,776	1,832,816	5,775,490	24,694.72
P20	2,950,039	990,129	1,837,211	5,777,379	24,784.05
P12	2,990,772	972,071	1,830,055	5,792,898	24,646.64
M32	1,993,093	1,309,535	2,512,091	5,814,719	42,079.80
M21	2,465,897	1,132,450	2,246,287	5,844,634	33,547.08
P14	3,051,151	978,555	1,829,841	5,859,547	24,642.76
M22	2,425,375	1,134,242	2,318,939	5,878,556	36,746.55
M31	2,283,909	1,233,525	2,377,632	5,895,066	39,201.93
M20	2,454,048	1,150,538	2,322,509	5,927,095	36,759.98
M30	2,234,066	1,275,236	2,438,906	5,948,208	40,734.48
P22	2,612,101	1,149,438	2,257,535	6,019,074	34,735.25
P23	2,577,600	1,168,666	2,313,779	6,060,045	36,675.58

GROUP 5: *AIR QUALITY WORKSHOP*

"Overcoming Conflicts Resulting from Society's Demands for Clean Air and a Healthy Ecosystem/Fire Safe Community"

Air Quality Workshop Issue Statements:

1. How will government agencies and private interests define and reconcile the often conflicting relationship between fire and air quality in attaining California's healthy, but generally "fire dependent" ecosystem.

2. What are effective strategies and potential partnerships in the development of California Air Resource Board's Title 17 Revision/Statewide Smoke Management Plan process.

3. How will fire mangers and air regulators implement California's state and federal fire plans and air quality policies, while complying with EPA's proposed Regional Haze Program requirements.

4. What will be California's response and actions to mitigate Nevada's environmental and public health concerns relating to the transport of smoke across the California border into Nevada.

5. How will California's fire and air quality policies and practices relate to agricultural burning issues.

6. How will future and existing air quality regulations address the often conflicting social values of providing public health protection (clean air) as opposed to providing for public safety (fire safe communities and ecosystems).

Air Quality Workshop Goal Statement

Goal Statement:

1. California's fire and resource management agencies (air regulators and land managers), including appropriate private sector stakeholders, must develop a cooperative, working partnership/strategy that will overcome political/social barriers and legislative/regulatory conflicts, in order to insure the long term health of California's ecosystems and publics.

2. California's fire and resource management agencies (air regulators and land managers), including appropriate stakeholders must collaboratively develop a consistent "fire role/air quality" message for legislators, policy makers and the public.

Air Quality Workshop "Subject Matter Experts" Panel

Workshop Panel Leader:
Primary: Jerry Merrill - California Land and Water Institute (Prop. 7 Advocate)
Alternate: Loyd Forrest - TSS Consultants (Prop. 7 Author)

Panel Members:
John Kennedy - U.S. EPA Region 9
Lawrence Lingbloom - Assembly Natural Resources Committee, Legislative Secretary
Hector Guerra - San Joaquin Air Quality Management District
Terry McGuire - California Air Resources Board
Tom Nichols - USDI, National Park Service
- California Board of Forestry Representative/Spokesperson
- Sierra Club/Wilderness Society Representative
- County Supervisor (Appropriate/representative county)
- California Private Forestry Representative/Advocate